Public Utilities

Volume XLVII No. 6 March 15, 1951

Above, Barber 324-B Automatic Conversion Burner. Tested and certified by AGA Laboratory under new listing requirements.

No. 49-113-B Barber Automatic Burner Assembl

For Top Performance— Use Barber Automatic Conversion Burners

PERFECTED DESIGN: Why experiment with unproved burners? Barber units are tested in many thousands of installations over a thirty year period. That means trouble-free operation, fewer complaints, returns, and service charges.

OUTSTANDING EFFICIENCY: Famous patented Barber air-activated jets (available in no other burner) assure the most intense heat with a true "scrubbing" flame action on all walls of fire-box.

DIRECT ACTION: This flame is applied direct to walls of combustion chamber—no refractory, no spreader.

GREATEST ECONOMY: Thorough combustion gets the most from the fuel, the most from the equipment. Also, a Barber job requires minimum installation cost. You can even, in many cases, use the existing automatic controls, if the owner has them.

FINEST CONTROLS: The best precision automatic equipment obtainable.

TAILOR-MADE FIT: Barber models are furnished in proper sizes for all round or oblong furnaces or boilers, and are further adjustable to correctly fit all grate dimensions. Recommend and install genuine Barber Burners.

Ask for complete Catalog of Appliance Burners, Conversion Burners and Regulators

THE BARBER GAS BURNER CO., 3682 Superior Avenue, Cleveland 14, O

BARBER BURNER

For Warm Air Furnaces, Steam and Hot Water Boilers and Other Appliances

Editor • ELLSWORTH NICHOLS
Managing Editor • FRANCIS X. WELCH
Associate Editors • NEIL H. DUFFY
DONALD E. ROBINSON
FRANKLIN J. TOBEY, JR.
DONALD T. BURKE
McLELLAN SMITH
Financial Editor • OWEN ELY
Assistant Editors • M. C. McCARTHY
M. L. WILLIAMS

HENRY C. SPURR
Editorial Consultant

Public Utilities FORTNIGHTLY

VOLUME XLVII MARCH 15, 1951 NUMBER 6

ARTICLES

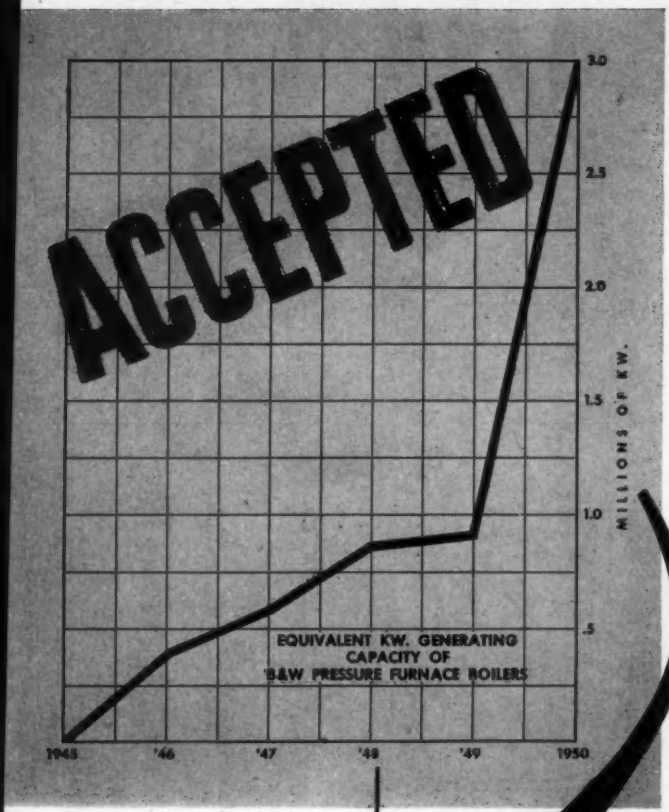
FEATURE SECTIONS

PUBLIC UTILITIES REPORTS, INC., PUBLISHERS

Publication Office.....CANDLER BLDG., BALTIMORE 2, MD.
Executive, Editorial, and Advertising Offices..MUNSEY BLDG., WASHINGTON 4, D. C.

Entered as second-class matter April 29, 1915, under the Act of March 3, 1879, at the Post Office at Baltimore, Md., Dec. 31, 1936. Copyrighted, 1951, by Public Utilities Reports, Inc. Printed in U. S. A.

Address all communications concerning the FORTNIGHTLY *to the publishers at Munsey Building, Washington 4, D. C.*



B & W puts th

pres

NEW

... improved principle of boiler-furnace operation pioneered by B & W

MAJOR COST-SAVING ADVANTAGES

1 **Eliminates ID fan—lowers demand charge.**

2 **Prevents air infiltration—provides higher boiler efficiency.**

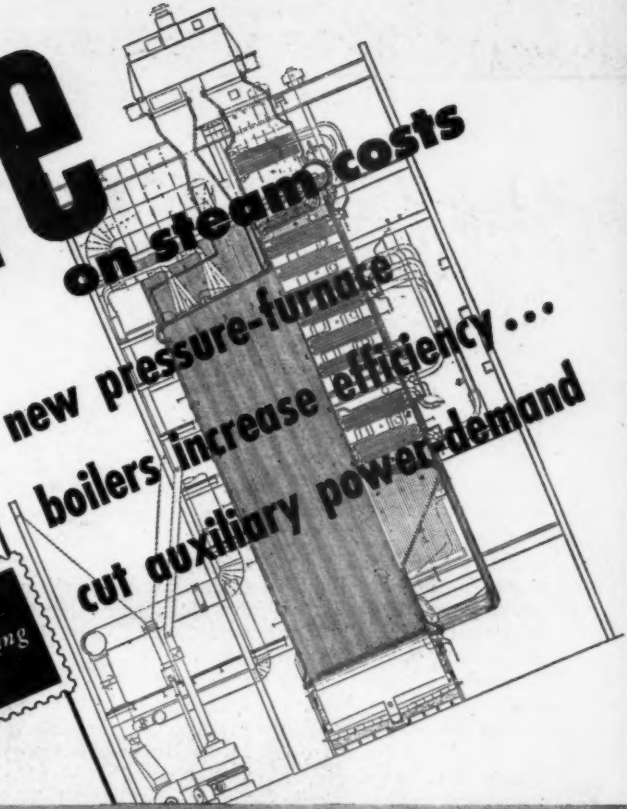
3 **Simplifies draft control—permits quick, easy, effective adjustment to optimum combustion conditions at all loads.**

4 **Simplifies design—lowers initial cost of duct and stack arrangement.**

pssure

on steam costs

new pressure-furnace boilers increase efficiency... cut auxiliary power-demand



Another Example of B&W Engineering for Economy

Stacks will be shorter in 1951, as B&W Pressure-Furnace Boilers set the style in higher boiler efficiency and lower auxiliary power-demand.

Acceptance of this most recent type of furnace construction followed rapidly upon its first successful applications to Stirling, Integral-Furnace, Radiant, and Open-Pass units. Comparison of advantages in conventional vs. pressure-casing designs inevitably leads to a choice of the latter for *most* operating conditions.

As the chart shows, orders have been received for an equivalent generating capacity of about three million kw, comprising installations of Integral-Furnace and Radiant Boilers ranging from 250,000 to 1,357,000 lb. per hr. individual steam capacity. Fuels include gas, oil, and both pulverized and cyclone-fired coals.

Helping America's electric companies to keep power costs down is an 83-year tradition with B&W . . . currently evident in such pioneering developments as Cyclone-Firing, Gas-Recirculation, and Natural Circulation at pressures to 2500 psi. You'll want to learn the details of these significant features as they relate to your own company's future requirements. The Babcock & Wilcox Company, 85 Liberty Street, New York 6, N. Y.

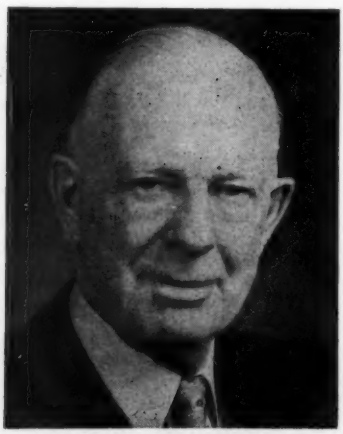
BABCOCK & WILCOX

Pages with the Editors

ONE of the strangest developments during the tenure of the British Labor party has been its inability to control strikes—especially on the nationalized public utilities services of Great Britain. It has not been so long since the Labor government was forced to call out the army to break a dock strike. Last month Britain's wildcat on-again-off-again dock strikes swept the port areas of London, Liverpool, Glasgow, Manchester, immobilizing more than 50 ships. At the same time, a strike by 600,000 workers on the nationalized railways threatened.

THE peculiar aspect of these developments is that the British workers are striking against a Labor government. Wildcat strikes are, theoretically at least, illegal in Britain. A legal strike there can be conducted only after the responsible union notifies the Ministry of Labor that a dispute exists. This is supposed to give the Ministry a chance to resolve the dispute before the walkout occurs.

ACTUALLY, however, the so-called wildcat strike has become more prevalent than the "legal" strike. It would thus seem that labor disputes generally are more theoretically regulated and, at the same time, more actually out of control under the British Labor government than under out own admittedly capitalistic setup. Here in the United States it would be difficult to imagine President Truman calling out the Army to break a strike on the railways or docks.



SAMUEL H. CROSBY

ASIDE from the fact that it might be political suicide, it has not been our national policy to make strikebreakers out of our soldiers. That strange development remained for a Labor government to employ. This paradox does not seem so strange, however, when we consider it against the broader background of the status of organized labor in other countries which are supposed to be dedicated to the rights of the workingman.

PERHAPS the secret of this exemplary freedom of action, which the American laboring man enjoys, can be found in the give-and-take arm's-length bargaining which has been worked out in many of our major industries. But no small part of the answer can be found in the contributions which have been voluntarily made by both American management and the American workers towards a system of free relationships between employers and employees.

THIS system obviously extends further than mere issues of wages, take-home pay, union recognition, and the like. It embraces the broad field of employee opportunities, including such collateral benefits, popularly known as "fringe benefits," as leave and retirement.

IN this issue we present (beginning on page 344) an analytical article on fringe benefits in utilities. It is a product of MARION HAMMETT whose long experience as an economic analyst with the United States Department of Labor fits her to discuss and describe the impres-

sive record which the utilities have made for the benefit of their employees.

* * * *

IT has been twelve years since Congress passed the Natural Gas Act. Strangely enough the gas industry was the last of the three major community plant utility industries to come under Federal regulation. Yet, gas is the eldest of the three utility industries—electricity and telephone being the other two—to become subject to regulation. The youngest of these—interstate telephone operations—first came under the sway of the Federal Communications Commission in 1934. Interstate electric utility operations (as distinguished from hydroelectric licensing) was not regulated by the Federal Power Commission until the enactment of the Federal Power Act as amended in 1936. And so we have a regulatory exemplification of the biblical text: "The first shall be last, and the last shall be first."

THE opening article in this issue is a contemporaneous review of the experience of the Federal Power Commission during the twelve years the Natural Gas Act has been on the Federal statute books. It is written by SAMUEL H. CROSBY, who was for five years a trial examiner for the Federal Power Commission. Since that time MR. CROSBY has been on the other side of the regulatory fence as a legal consultant—specializing in gas matters. He is a graduate (AB, Phi Beta Kappa) of Grinnell College, Grinnell, Iowa, and has had three decades of unusual diversified practice of law.

* * * *

WE introduce a new author in this issue, a well-known transit executive, WARREN POLLARD, president of the Virginia Transit Company, operating in Richmond and Norfolk, with affiliated system service in Portsmouth, Virginia. MR. POLLARD'S article, "Transit Girds for War," begins on page 339. Born in Jersey City in 1898, MR. POLLARD was brought up in Atlanta, Georgia, and graduated from Georgia Tech ('20) with a degree in electrical engineering. With the exception of two years as a student engineer with General Electric, he has spent his entire business career in public utilities. From 1922-1933 he was employed in various engineering capacities with the Georgia Power Company. In 1933 he moved over to take charge of the Georgia Power Company's automotive and eventually its transit properties in Atlanta, Rome, Augusta, and Macon. Since 1946 he has been with his present organization, making his headquarters in Richmond where he is active in civic and business activities. He was president of the American Transit Association in 1948.

LINCOLN SMITH

* * * *

DR. LINCOLN SMITH, whose article on the power embargo in Maine begins on page 351, is a political scientist specializing in public administration. He is a native of Maine and a graduate of Bowdoin College. He took postgraduate degrees (AM and PhD) at the University of Wisconsin, and has taught at Yale University, University of Pennsylvania, and the University of California at Los Angeles.

THE next number of this magazine will be out March 29th.

The Editors

Coming IN THE NEXT ISSUE

★

MEET THE FCC

The Federal Communications Commission is now one of the older Federal regulatory agencies dealing with interstate public utility service. In nearly seventeen years of existence it has survived recurring storms and criticisms. Today it is well established as the Federal umpire for the nation's radio, telephone, television, and allied communications services—although criticism naturally continues. Herbert Bratter, Washington author of business articles, gives us an inside eye view of the FCC as it is today, its personalities, and its problems.

TWELVE YEARS UNDER THE NATURAL GAS ACT. PART II.

President Truman's troubles with the 81st Congress may seem mild in comparison with his difficulties with the 82nd, but Washington observers agree that last year's controversy over the veto of the Kerr Bill, to oust FPC from control over independent producers, was among the first signs of cleavage between the President and Congressmen of his own party on major legislation. In his concluding instalment Samuel H. Crosby, former FPC examiner, explains the regulatory controversy which gave rise to the Kerr Bill.

TRANSIT STRENGTHENS FOR AN UNCERTAIN FUTURE

The United States Chamber of Commerce has been active in mobilizing business on a regional basis to coöperate with emergency measures taken by the Federal government. One of the most important phases of this program was the adoption of five emergency transportation policies. Powell C. Groner, president of the Kansas City Public Service Company, an experienced public utilities official, gives us his comment and analysis of the chamber's transportation policy, with emphasis on the local transit aspects.

FALLACY OF TAX COMPARISONS

A frequent challenge aimed at publicly owned utilities is that they don't pay taxes and that their customers enjoy preferentially low rates. Not long ago PUBLIC UTILITIES FORTNIGHTLY published an article especially criticizing publicly owned ventures in the Far West on this score. By way of balance we present this analysis of the situation from the viewpoint of a successful municipal plant. Albert Hamilton, on behalf of the Sacramento (California) Municipal Utility District, contends that Sacramento customers get full-rate advantage of any rate or other preference the municipal plant enjoys.

★

Also . . . ***Special financial news, digests, and interpretations of court and commission decisions, general news happenings, reviews, Washington gossip, and other features of interest to public utility regulators, companies, executives, financial experts, employees, investors, and others.***

Remarkable Remarks

"There never was in the world two opinions alike."
—MONTAIGNE

ANDREW F. SCHOEPPEL
U. S. Senator from Kansas.

"If we ruin ourselves financially, there is not much hope left for other countries of the world."

EDITORIAL STATEMENT
Pathfinder magazine.

"You've got to say this for the men in charge of our government—they're running it like nobody's business."

DONALD GORDON
Chairman and president, Canadian National Railways.

"The one goal that transcends all the differences between people who now live outside of the Iron Curtain is the determination to remain free of the chains of Russian bondage."

JOHN MARSHALL BUTLER
U. S. Senator from Maryland.

". . . if we acquiesce to the multitude of government controls and restrictions in a time of peace, we may find the country bound in a socialistic maze of government from which we may never be able to extricate ourselves."

M. S. RUKEYSER
Columnist.

"Unless common sense, common honesty, and a respect for simple arithmetic, rather than demagogic slogans, are the accepted guideposts in the fiscal field, then the national position will be weakened by economic misbehavior."

JOHN CHAMBERLAIN
Editor, The Freeman.

" . . . the middle class is the only class in history that has ever sought to make legal 'rights' the universal possession of all men. The 'bourgeois' may despise the Bohemian, but he is willing to leave him alone. The bourgeois is even willing on occasion to pay the Bohemian's bills."

EDITORIAL STATEMENT
The (Washington, D. C.) Daily News.

"Why is it that the United States, with all the talent it has trained in the art of negotiation, can't be as well represented at international conferences as are the United Mine Workers, the CIO, the Farmers Union, and the National Association of Electric Companies in their respective fields?"

EARL BUNTING
Managing director, National Association of Manufacturers.

"Two decades of emergency thinking, long years of crisis-facing, twenty years of 'running to Washington,' all have left their mark upon our individual independence, resourcefulness, and self-reliance. In this process we have surrendered much more to Washington than we have gained from Washington."

EDITORIAL STATEMENT
Long Prairie (Minnesota) Leader.

"The country indeed faces a dismal future if the program is not to curtail spending but only to choose between whether to get the money by borrowing or by more taxation."

LOWELL MELLETT
Columnist.

"Listening to the complaints coming from some quarters since the President sent his budget up to Congress, a stranger in these parts might be led to believe that the people in '48 had elected Norman Thomas instead of a farmer-businessman-soldier-lawyer from the Midwest named Truman."

JOHN PHILLIPS
U. S. Representative from California.

"A year's experience has shown the consolidated budget to be a device for spenders, not for savers, and the best thing Congress can do for the taxpayers would be to correct this situation as quickly as possible. . . . every time we give the spenders a chance to confuse the issue or to hide costs we are giving our spending opponents an advantage."

EDITORIAL STATEMENT
Los Angeles Times.

"The administration has proposed candidly an armed force of 3,500,000. But saying nothing much about it, the administration is building an invisible civilian force which could easily outstrip the armed force in numbers. It is now well above 2,000,000. Unless the Byrd committee is heeded, the figure may be 2,500,000 by the end of the fiscal year."

HARRY S. TRUMAN
President of the United States.

"Our freedom is in danger. Sometimes we may forget just what freedom means to us. It is as close to us, as important to us, as the air we breathe. Freedom is in our homes, in our schools, in our churches. It is in our work and our government and the right to vote as we please. Those are the things that would be taken from us if Communism should win."

HENRY MCLEMORE
Columnist.

"There should be no law against shooting people who stay in phone booths longer than five minutes. That is, of course, unless you yourself are in there. That makes it entirely different. There are few things more maddening than to stand outside a booth for five minutes and then watch the fellow you thought was about to come out start reaching in his pocket for another nickel—excuse me, a dime, these days."

RICHARD M. SIMPSON
U. S. Representative from Pennsylvania.

"The President glibly dares Congress to try to save the taxpayers' money by cutting his spending program. . . . he told the country it would have to be taxed to the extent of $16.5 billion more, but came up with recommendations for only $10 billion additional. In other words, he passed the buck to Congress on raising an additional $6 billion to $16.5 billion. I dare the President to disclose how he would raise the entire $16.5 billion."

...it takes TOP OFFICE PRODUCTION

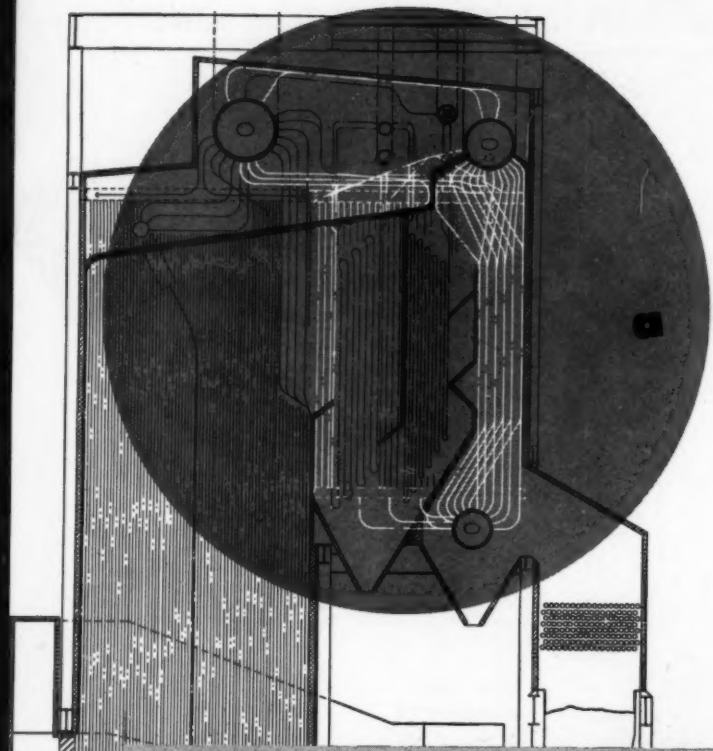
That's why top utilities are using Re

Yes, they have discovered that Rem and w
ington Electri-conomy Typewriter nifice
can turn out more work, better wor So wh
in less time, with less effort. to m

Vital records, accurate statistics, mul times
tiple reports, legible carbon copies ductiv
distinctive correspondence—these and watch
many others are prepared swiftly... typin

Remington Rand INC.

THE FIRST NAM IN T



a utilit

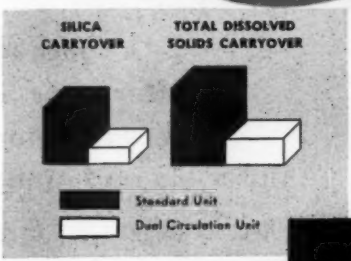
THE answer to many problems facing steam-electric plants requiring an abundant steam supply at high pressures and temperatures for power and process is being provided by Foster Wheeler Dual Circulation Steam Generators. The advantages of Dual Circulation are already being proved in refinery application where these problems are further complicated by high make-up and high solids concentrations in the make-up and boiler feedwater.

In recognition of the advantages of the Dual Circulation Steam Generator in the public utility field where make-up normally is relatively low, a midwestern utility recently ordered the three-drum unit shown above. This unit is designed for a capacity of 425,000 lb per hr and will deliver steam at a pressure of 1350 psi and a temperature of 955 F. The low carryover, previously unattainable, will reduce boiler and turbo-generator outages with consequent savings in maintenance costs and gains in operating revenue. The advantages of the Dual Circulation Steam Generator over standard units are illustrated at the right.

● *Write for a Copy of Bulletin B-50-11*

FOSTER WHEELER CORPORATION 165 BROADWAY NEW YORK 6, NEW YO

ecifies... DUAL-CIRCULATION



REDUCED CARRYOVER OF

a. Silica
b. Total Dissolved Solids

CONCENTRATION IN HIGH DUTY FURNACE
RESULTING IN

a. Minimum Tube Damage
b. Reduced Maintenance and Outage Time

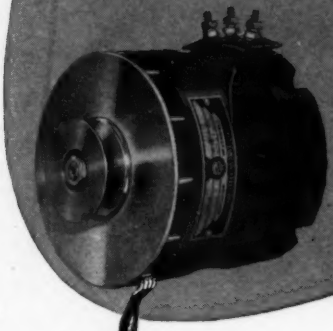
IMPORTANT SUPPLEMENTARY ADVANTAGES IN CERTAIN APPLICATIONS

a. Reduced Blowdown With Resulting Reduction In Heat Loss and Size of Heat Recovery Equipment

b. Reduced Cost of Chemicals and Equipment For Water Treatment

FOSTER WHEELER

Dependable Power
For
DISASTER COMMUNICATIONS SERVICE



Leece-Neville Alternator System Saves Maintenance, Materials and Manpower

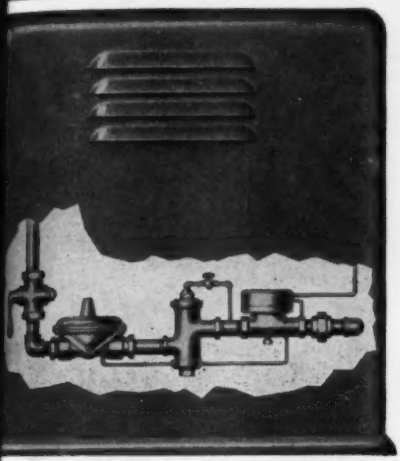
A Leece-Neville AC-DC Alternator System delivers 25 to 35 amperes with the engine idling. This effects substantial gasoline savings and reduces engine wear. Current is delivered at a constant, fixed voltage, which lessens deterioration of scarce radio tubes and batteries.

Most important of all is the famous dependability of the Alternator System. To help insure vital communications in case of disaster, every mobile radio should be equipped with the Leece-Neville Alternator System.

For all the facts, write Dept. 26,
The Leece-Neville Co., Cleveland 14, O.
Pioneer and STILL Quality Leader

Leece-Neville

WHICH WOULD YOU PREFER?



his Old-Fashioned Gas-Control Hookup

This *NEW* Single Gasapack Unit

Check These Advantages

- ONE unit replaces ALL separate controls and their assembly costs.
- Noiseless operation — no annoying clicks or hum to irritate users.
- 100% Safe lighting; 100% fail-safe, automatic pilot and filter; Built-in pressure regulator; 100% safety shut-off. A.G.A. listed.
- Compact size — 3⅜" x 5½" x5½" — permits wide latitude in styling.
- Complete adaptability to manual, thermostatic electric or thermostatic mechanical control.

Only GASAPACK combines all 5 necessary gas controls in one simple, compact modern unit

With A-P's modern GASAPACK you have only ONE unit to install — instead of up to five separate controls! Think what this means to you: The reduction in inventory alone amounts to a substantial saving, for the GASAPACK eliminates not only all separate controls — but also the nipples, reducers, fittings and tubing required to connect them!

Then look at the saving in assembly labor — *up to 67%!* What's more, you get simplification of service resulting from ONE unit instead of five, the ease and economy of ordering from ONE dependable source. Yes, and you'll see why users call the GASAPACK the most economical unit they can buy!

A-P's SINGLE-UNIT GASAPACK offers you still more . . . manual control, thermostatic electric temperature control or thermostatic mechanical control, and *all with one basic unit!* Extreme simplicity permits either factory installation of *both* thermostatic controls or sale by your dealers as accessories.

Get the full story of this remarkable control. Write for Bulletin G-7 today.

DEPENDABLE Controls
For Modern Gas Heating

A-P CONTROLS CORPORATION

(formerly Automatic Products Company)

2470 N. 32nd Street • Milwaukee 45, Wisconsin

In Canada: A-P Controls Corporation, Ltd., Cooksville, Ontario

LOOK FOR THE U.L. SE

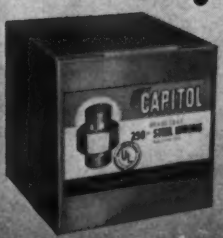
WHEN YOU BUY UNIONS

LISTED UNDER REEXAMINATION SERVICE
UL
UNDERWRITERS' LABORATORIES OF

- BRASS SEAT
- GROUND JOINT
- ALL THREADS TAPERED

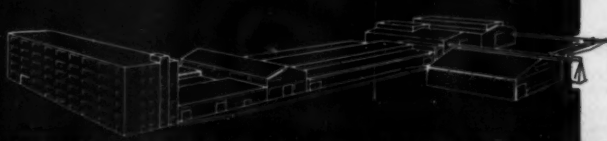
YOUR GUARANT

of unif
compliance with the ri
requirements of
UNDERWRITERS'
LABORATORIES



- Listed by Underwriters' Laboratories for use with all piping applications, including hazardous liquids, up to 250# Steam Pressure.
- Larger sizes are all forged-steel; smaller sizes machined from solid bar steel. High tensile strength — no sand holes.
- Compare Capitol Unions with any other union. Check workmanship, dimensions, weight, and finish; perform any test within their pressure rating — then, compare prices.
- Packaged in convenient quantities with each carton displaying the U. L. Seal.

SPECIFY CAPITOL U. L. UNIONS



CAP CAPITOL
MFG. & SUPPLY CO
COLUMBUS, OHIO

COUPLINGS — NIPPLES — UNIONS — RADIANT HEAT FITTINGS
FURNACE COILS — WELL SUPPLIES — STEEL PIPE FITTINGS

Trail Blazing for fifty years

HALF CENTURY OF POWER PROGRESS

1901 1951

- Turbine Generators
- Deaerating Heaters
- Motors
- Generators for Diese
- Turbochargers for Di
- Centrifugal Blowers
- Condensers
- Steam Jet Ejectors
- Mechanical Drive Tur
- Strainers
- Tube Cleaners

ELLIOTT COMPANY engineers have set the pace in so many new and successful equipment developments, that the attacking of old problems from new angles is an established Elliott characteristic. Whether it be a turbine-generator or a twin strainer—a condenser, or a tube cleaner for that condenser, the purchaser knows that the product will have all the latest in design elements to insure long life, profitable operation and minimum maintenance.

"You're a step ahead with Elliott" means what it says, as many power stations know.

ELLIOTT COMPANY

HEADQUARTERS AND GENERAL OFFIC
JEANNETTE, PA
Plants at: JEANNETTE, PA. • RIDGWAY, P
AMPERE, N. J. • SPRINGFIELD, O. • NEWARK, N.
DISTRICT OFFICES IN PRINCIPAL CITI

Approved service shops and distributors strategically located throughout the United States

Utilities Almanack

MARCH

15	T[h]	¶ *National Electrical Manufacturing Association ends annual meeting, Chicago, Ill., 1951.*
16	F	¶ *American Water Works Association, New England Section, begins annual meeting, Boston, Mass., 1951.*
17	S[a]	¶ *Chamber of Commerce of the United States ends 2-day meeting of board of directors, Washington, D. C., 1951.*
18	S	¶ *New England Gas Association will hold annual meeting, Boston, Mass., Mar. 29, 30, 1951.*
19	M	¶ *Liquefied Petroleum Gas Association, Southeastern District, begins convention and trade show, Atlanta, Ga., 1951.*
20	T[u]	¶ *Oklahoma Utilities Association will hold annual convention, Tulsa, Okla., Mar. 29, 30, 1951.*
21	W	¶ *EEI, Industrial Relations Committee, begins joint meeting with AGA, Personnel Practice Committee, and New England Utility Personnel Association, Boston, Mass., 1951.*
22	T[h]	¶ *American Gas Association, Industrial and Commercial Gas Section, will hold conference, Washington, D. C., Apr. 2–4, 1951.*
23	F	¶ *American Society of Mechanical Engineers will hold spring meeting, Atlanta, Ga., Apr. 2–5, 1951.*
24	S[a]	¶ *Electric Association of Chicago will hold industrial electrical exposition, Chicago, Ill., Apr. 2–7, 1951.*
25	S	¶ *Iowa Independent Telephone Association will hold annual convention, Des Moines, Iowa, Apr. 3, 4, 1951.*
26	M	¶ *Protective Relay Engineers begin annual conference, College Station, Tex., 1951.*
27	T[u]	¶ *Nebraska Telephone Association begins annual convention, Lincoln, Neb., 1951.*
28	W	¶ *American Water Works Association, Illinois Section, begins annual meeting, Chicago, Ill., 1951.*

Courtesy, International Harvester Company

Wrapping Up Tomorrow's Fuel Supply

Public Utilities
FORTNIGHTLY

VOL. XLVII, No. 6 MARCH 15, 1951

Twelve Years under the Natural Gas Act

PART I

This author, a former examiner with the Federal Power Commission and well-known legal consultant and writer on natural gas regulation, is obviously well suited to give us his opinions as well as a contemporaneous analysis of background, progress, and outlook for Federal regulation of the gas industry under this important statute.

BY SAMUEL H. CROSBY*

THE Federal Power Commission has now administered the Natural Gas Act twelve years. Four of these years measured World War II. The last five may be long remembered as *the luxury years.* Right now may be an appropriate time, as national inventories of assets and liabilities are being taken against our unknown perils, to have a close look at the commission and at the natural gas industry. This close look may be both informative and interesting.

In these twelve years, both the commission and the industry have grown more powerful. They have disagreed and they have fought, but neither has particularly damaged the other. As we prepare to face a common enemy they will close ranks and carry on with a will for the strengthening of our free world which believes in private enter-

*For personal note, see "Pages with the Editors."

prise under laws of general effect.

The books are closed for 1950 but the accountants are not yet ready to report. The commission's thirtieth annual report is off the press just about now but that's for "1950 fiscal." Down to date, data of the American Gas Association and the trade journals give a good enough idea of what the natural gas industry is today, what it has done in the past year, and what it expects (or should we say *hopes?*) to do in 1951.

DURING 1950 FPC approved the construction of 5,750 miles of new natural gas transmission lines which would boost the total system mileage well over 260,000—extending from coast to coast and border to border.

At year end the *natural gas* industry had invested in "gas utility plant" more than $4 billion. Nearly fifteen million *customers* — somewhere between forty and fifty million *people*— in 1950 used more than three and a half *trillion* cubic feet of natural gas. But here's the magic: Reserves are 6.5 trillion cubic feet *more* than a year ago and are now estimated at *180 trillion* cubic feet.

As for 1951, pending applications not reached for hearing seek FPC approval for the construction of additions, extensions, and new lines adding up to more than 12,000 miles.

Nineteen fifty seems likely to be the banner year for the extension of natural gas service. Unless important industrial service sought by government is involved, it now seems quite unlikely that new major projects will be able to win early approval.

Taking Measure of the Natural Gas Industry

THE Water Power Act of 1920 established a Water Power Commission, the ex officio members of which were the Secretaries of War, Interior, and Agriculture. This commission functioned in a desultory way with a skeleton staff until 1930 when President Hoover recommended and Congress established the 5-man Federal Power Commission. This new commission annually elected its own chairman until last summer, when, as a part of reorganization in the executive branch of the government, the President became empowered to appoint the chairman. All administrative and executive powers and responsibilities are now vested in the chairman, with regulatory powers and responsibilities remaining in the board.

Until the revision of the Water Power Act of 1920 as Part I and the enactment of new Part II of the Federal Power Act in 1935, the commission was charged with relatively limited administrative duties under the Water Power Act of 1920 and related acts. The Federal Power Act brought the commission into the middle of a broad domain. With the knowledge gained in its early years, together with the vast collection of data assembled by the Federal Trade Commission in its investigation of electric utilities, FPC was well prepared to enter upon its enlarged duties.

The relevance of ancient history to this article is found in the fact that when the Natural Gas Act was passed in 1938 FPC had fully completed its plan for regulation of the electric industry and many of its formulas re-

quired only the substitution of terms from the vocabulary of Reddy Kilowatt to that of Eternal Flame.

Furthermore, the final report of the Federal Trade Commission's investigation of the natural gas industry, together with thousands of pages of testimony and statistical data, provided the engineers, accountants, and economists of FPC immediately with a very full and complete understanding of the background and composite behavior characteristics of its new "pupil" in the school of regulation. In the years since, that "pupil" has attained great stature and importance in our society and is very welcome everywhere.

New Law Gets Sharp Teeth

In 1942 the Natural Gas Act was amended to require specific authorization before any natural gas company may lawfully extend or add to its facilities by construction, purchase or merger, connect a new customer, or abandon any facilities or service. Every new project that will come within FPC jurisdiction must be authorized before it is started. Every act falling within the scope of the amendments must be described in a formal application. Notice of the application is published in the *Federal Register* and public hearing may be had in every case, although in practice the hearing procedure is simplified unless the application is formally challenged.

Approval is evidenced by a formal certificate of public convenience and necessity to which the commission may attach "reasonable" conditions. The commission is inclined to believe "reasonable" may include limitation upon "end use" (as for instance: prohibiting sales for boiler fuel) and conditions relating to maximum debt, minimum equity, or sale of debt securities by competitive bidding.

The hearings under this new procedure, frequently slow and cumbersome during the first few years, have safeguarded the public interest to a degree which is probably not fully realized. In every case the applicant must show by preponderant evidence under oath that consummation of the project proposed "is or will be required by the public convenience and necessity."

Not the least of the benefits is the thoroughness required of the applicant in preliminary planning, not only in obtaining sound assurance that adequate capital will be available but

CERTIFICATES AUTHORIZING CONSTRUCTION AND OPERATION OF NATURAL GAS FACILITIES
(Data from FPC annual reports on basis of *fiscal* years)

Year	*Number Granted*	*Estimated Cost*
1942	1	$ 86,800
1943	4	1,642,509
1944	25	106,082,485
1945	43	34,170,760
1946	52	127,189,731
1947	132	273,190,731
1948	98	520,000,000
1949	91	566,203,000
1950	108	487,240,014

in competent and completed engineering, in obtaining adequate firm commitments for gas supply, and the assurance by market surveys and firm contracts that the prospective market will pay its share of the project debt.

During the years 1942-43 only five relatively unimportant certificates were granted but there were steady increases in the years 1944-46 and, as line pipe became more readily available after World War II business really picked up. This simple graph on page 335 shows the truly phenomenal job the commission and its staff have done with thoroughness and conscience.

The $64 Question—How Much Natural Gas Is There?

BACK in 1940 the twentieth annual report of the commission shows that the generally accepted estimate of natural gas reserves was then 66 trillion cubic feet with annual consumption for all purposes approximating 2.4 trillion, which would exhaust all reserves in approximately twenty-seven and one-half years.

In the same report there was considerable discussion of the application then pending for a certificate of public convenience and necessity permitting Reserve Gas Pipe Line Company to build a 250,000,000 capacity natural gas pipeline to serve New York city from sources 1,500 miles distant in south Texas, at an estimated cost of $80,000,000.

The commission was understandably concerned with conservation aspects of this project, but for one reason or another the application did not come to issue before Pearl Harbor and was then wholly forgotten.

The best answer the commission finally obtained to this $64 question has its foundation in the detailed and voluminous data collected in the 15,000-page, 500-exhibit record of the G-580 gas investigation conducted in 1945-46.

Great progress had been made in the fields of exploration and production between 1940 and 1946, paced by wartime necessities for both gas as industrial raw material and petroleum. With new markets and uses gas was no longer the unwanted offspring of the oil industry. The experts brushed up on their science and came out with estimates of 140 trillion for sure and 200 trillion possible. In spite of steadily increasing demand and metered production, five years after the gas investigation the AGA score board shows 180 trillion as the current consensus.

How Do the Bankers Feel—Are Pipeline Bonds Safe?

WHEN we examine the record of the prodigious expansion program approved by FPC a natural first thought would be: Where does all the money come from? And the answer is right there in the record. The application for a certificate of public convenience and necessity in broad terms, and the evidence in detail at the hearing, shows just where all the millions will come from and on what terms. Firm commitments have been made—subject, of course, to act of God or the public enemy.

Any industry that can borrow 75 per cent of its capital for productive plant from the management of the largest aggregation of investment

What Price Pipelines?

"WHEN we examine the record of the prodigious expansion program approved by FPC a natural first thought would be: Where does all the money come from? And the answer is right there in the record. The application for a certificate of public convenience and necessity in broad terms, and the evidence in detail at the hearing, shows just where all the millions will come from and on what terms. Firm commitments have been made—subject, of course, to act of God or the public enemy."

funds in the world is undoubtedly a sound business. When an applicant presents a large pipeline project to FPC the commissioners are always concerned with the details of financing. Since no commitment is ever made without the most searching investigation by the financial sponsor, the project is quite likely to prove safe.

The financial record of the industry is unblemished and natural gas pipeline stocks are particularly steady in the market.

It may also be suggested for good measure that when our reservoirs of natural gas commence to fail, coal gas will be available to supply the deficiency. We have this assurance from our top scientists. America has developed a strong penchant for gaseous fuel. We are quite likely always to need pipelines.

Supreme Court Decisions

JUDICIAL review of commission orders under the Natural Gas Act is within the jurisdiction of the U. S. Circuit Courts of Appeal and their decisions are final unless the Supreme Court finds error. The commission's findings of fact, with perhaps a single exception, have been accepted in all litigated cases. Aid of Federal district courts is available to the commission for enforcement of process but seldom has been required. It was intended when the Natural Gas Act was passed, so far as practicable, to expedite appellate procedure.

Many issues have been adjudicated under the Natural Gas Act and in every case but one reviewed by the Supreme Court the commission has been sustained. No useful purpose would be served by a review of these cases. However, the commission has

won recognition for "prudent investment" or net investment valuations of public utility properties as a basis for rate regulation, and the Supreme Court has established the commission's procedures as the law of the land. This is a notable victory, concluding several decades of controversy. In the author's opinion those who have demanded revenues for public service based on fictitious valuations gave bad repute to private ownership. How the commission managed this achievement is a story worth telling.

The Federal Power Act was adopted in 1935 after completion of its 6-year investigation of the electric utilities by the Federal Trade Commission. Three years elapsed before the passage of the Natural Gas Act, although the original Wheeler-Rayburn Bill not only revised the Federal Water Power Act of 1920 and provided for thoroughgoing regulation of electric utilities, but also included a third part for the regulation of the natural gas industry. At that time the electric utility industry had grown prodigiously for two decades but interstate transmission of natural gas had just begun.

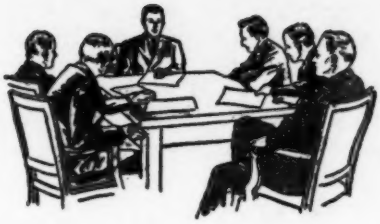
SPECTACULAR failures such as that of the Insull Empire had aroused a public opinion strongly supporting the purposes of the Power and Holding Company acts, but during the three years before the Natural Gas Act was finally adopted there was neither public interest nor demand for its adoption, nor any particular opposition. The National Association of Railroad and Utilities Commissioners supported the bill as unlikely to interfere with the established course of state regulation. Representatives of the natural gas industry voiced little objection to it. The final report of the Federal Trade Commission was available to Congress and its investigations had discovered relatively few objectionable practices in the infant interstate gas industry.

THE Natural Gas Act is brief and its structure simple. Notwithstanding its brevity, the law is very comprehensive. Without establishing standards or limitations the Congress delegated to the Federal Power Commission the most complete discretionary powers of regulation, and made these powers virtually unassailable on judicial review by removing the commission's findings of fact from consideration.

In 1942 at the request of the commission the act was amended to require the natural gas companies to obtain certificates of public convenience and necessity before building or extending pipelines or connecting new customers. The only other amendment which has been adopted permits condemnation of pipeline right of way.

Persistent unsuccessful attempts have been made by the industry to obtain other amendments, the last of which was the ill-fated Kerr-Harris Bill vetoed by President Truman last summer.

PART II *of this article will appear in the next issue of the* FORTNIGHTLY.



Transit Girds for War

Transit service is taken so much for granted that the particularly urgent problems of our streetcar and bus companies often escape the attention and understanding of the public.

By WARREN POLLARD*
PRESIDENT, VIRGINIA TRANSIT COMPANY

THE transit industry has taken off its gloves for a bare-knuckles fight to gain recognition as the prime mover of the people living in the urban areas of the United States.

Traditionally a shirt-sleeve industry, which has faced adversity more than it has prosperity, transit is now girding itself to provide transportation service for the peak load of workers employed in the nation's all-out production for preparedness. Speaking from purely physical and mental standpoints, the industry has the energy and know-how to meet the situation.

From a financial point of view, transit finds itself woefully weak. World War II caught transit emerging from the lean days of the 1930's with short pocketbooks and run-down fleets of equipment. The historically large number of passengers transported during World War II could have meant a real financial boon to companies throughout the nation, but equipment was unavailable except in rare instances and high taxes took the dollars that could have helped an industry suffering from financial malnutrition.

The financial status has not improved during the past five years. Although the passenger level is above the prewar days, transit companies are finding that rising operating expenses, mostly in wage rates that have in most instances doubled the rates of the 1930's, and the snail pace in which regulatory bodies move in granting much-needed fare adjustments drain off the little reserves that have been eked out of meager returns.

AN example of transit's ability to meet an all-out production passenger load was provided in World War II. But transit does not want to

*For additional personal note, see "Pages with the Editors."

experience the same thing twice, that of transporting perhaps 26 billion passengers with fleets of equipment that must be held together with baling wire because of government failure to recognize the industry's importance and provide necessary metal allocations to manufacture necessary repair parts. Even behind this was the proposition of doing the job with makeshift operators and in many instances unskilled and inadequately trained mechanics.

YES, transit has its bare knuckles showing. Even before the Korean "police action" got under way, transit executives throughout the country realized that extreme measures were necessary if the industry was presented another job of the magnitude of World War II. The "business as usual" idea was dropped and in its place there emerged a united front prepared to make an all-out bid for recognition in Washington as a vital industry.

Midsummer saw the annual convention of the American Transit Association scheduled for Los Angeles, California, canceled. In its place was an emergency conference set up for Chicago. Overnight there was organized a war program committee in two sections, one group representing operating companies and the other composed of manufacturers. Under the chairmanship of Harley L. Swift, president of the Harrisburg (Pennsylvania) Railways Company, the special war program committee has prepared an all-out mobilization plan which would cushion the industry against the serious setbacks of World War II.

The ATA headquarters' staff, spearheaded by Executive Manager Guy C. Hecker, set about gathering from every operating company an estimate of its equipment, repair parts, vital materials and supplies, and its important man-power needs to meet any eventuality.

ARMED with as much of this information as could be compiled, the industry leaders headed for Washington and the ears of government officials. Morris Edwards, president of The Cincinnati Street Railway Company, the former president of ATA, has worked closely with the association's staff in interpreting transit's needs to government officials. H. L. Bollum, president of Springfield (Massachusetts) Street Railway and now ATA president, has been hard in the fight since his election in September.

Some fruits of the battle are being reaped. The industry has obtained relief from some of the cutbacks on vital supplies already imposed. With aluminum, steel, copper, and other critical materials already restricted for civilian use, and the possibility of restrictions of the use of gasoline and rubber, the transit industry must establish its priority rights to do its job.

The full effect of President Truman's proclamation of a national emergency may not be felt until we are well into 1951, but the turn of events dictates anything but an easing up in efforts towards full preparedness.

One needs little imagination to realize what happens when public transit facilities are cut off. Industry and commerce come to a virtual standstill

The Rights of Mass Transportation

"THE transit industry has taken off its gloves for a bare-knuckles fight to gain recognition as the prime mover of the people living in the urban areas of the United States. Traditionally a shirt-sleeve industry, which has faced adversity more than it has prosperity, transit is now girding itself to provide transportation service for the peak load of workers employed in the nation's all-out production for preparedness. Speaking from purely physical and mental standpoints, the industry has the energy and know-how to meet the situation."

Workers cannot get to their jobs, traffic is choked by the mass movement of private automobiles, and the result is pandemonium. A study of the tremendous loss in cities throughout the nation that have experienced transit strikes in recent years will present eye-opening evidence of just how important public transportation is in urban life. The loss is irreparable not only in money, but also in the production and time, when time is of the essence.

This is the "why" that the transit industry is presenting to the heads of the National Production Authority and the Defense Transport Administration. Its importance cannot be overlooked nor can it be glossed over.

CONSTANT vigil is necessary, however, to anticipate each new threat to the industry and to overcome it in advance. Each company must have its own war plan of how it can serve the community in which it operates. The needs of local transit service are known best by local men, and how effective transit will do its job depends on how effective local operating executives will make known their needs to their city representatives and local draft boards.

Today, transit's problems are mostly financial. This $4 billion industry is one of the sickest of all the industrial giants from this standpoint. Few companies are showing a profit and many more are showing constantly diminishing returns and are operating at a loss. Certainly, the situation is not to the liking of its owners and operating executives.

The industry has had to ride the

rising tide of wage demands and meet rates that it could not afford at existing fares. High wages and increasing costs of materials and supplies forced fares upward like the prices of other necessities. Unfortunately, however, the long waiting period for action by regulatory bodies in granting relief brought on financial losses that could be ill-afforded and could not be recaptured.

Public ownership has not provided the answer either. Fares under municipal operation are as high as those under private management, and in some cases higher. Deficits incurred by municipal operations must be made up with tax money extracted from the entire community. But municipal *versus* private capital operation is another story.

Today the nation's transit lines are carrying 17 billion passengers annually, about 5 billion above the 1939 passenger load, with a combined fleet of motorbuses, trolley cars, trolley coaches, subway and elevated railway cars of 90,000 vehicles. If restrictions are placed on automobiles, rubber, and gasoline, the industry will have the responsibility of carrying a passenger load of 26 billion, a 50 per cent increase, and at least 15,000 more vehicles of all types would be required to do the job.

THE first six months of 1950, which was the period set by government officials as the norm in its ruling on equipment purchases cutbacks, was a time when transit companies had reached their lowest point in ordering vehicles, owing to financial difficulties. These cutbacks put the manufacturers of transit vehicles at a virtual stoppage, but the problem was rushed to Washington and an adjustment was arranged after conferences with Defense Transport Administration officials and others. Now manufacturers are rushing to fill orders for new busses, trolleys, and trolley coaches for necessary replacement.

An adequate supply of vehicles and repair parts will not be the only answer. Transit must have the necessary personnel to man the vehicles and to do the important maintenance job. The industry must gain "essential" status for its operators and mechanics as far as practicable. "Transit is in uniform too" is the cry that the executives must put up at the man-power conferences. A full report on the man-power needs which was compiled by ATA has been presented to back up the industry's stand, and it is recognized that every individual occupation in every industry will be given a thorough going over before any "critical" or "essential" list is determined.

On the basis of its importance in moving workers to and from their jobs, transit leaders are making a strong plea for the deferment of drivers, repairmen, and key executives.

THE problems facing the 1,500 transit companies are threefold and in a nutshell are:

1. Most companies will have a hard time paying for new vehicles required for normal operations and replacements unless there is a sharp increase in passenger loads. The industry generally has been starved for five years by rising operating costs and drastically declining revenues. Yet the industry must be prepared to transport

at least a 50 per cent increase in business in event of all-out war.

2. Then there is the program of tightening controls.

3. The prospective loss of personnel due to the draft.

WHILE the fight for recognition as a vital industry must be waged on a national level, local problems must be solved on a local level, with each company seeking its own salvation. These local problems include obtaining adequate fare structures to assure as far as possible the necessary revenues to do the job.

Then, too, transit must tell the story of its vital importance to the communities which it serves. Not only must transit carry a large segment of the population to and from work in fair weather and foul, but also it may play a real rôle in evacuation from our cities in cases of bombing attacks. Many communities have set up rules for clearing main highways of private cars in case of attack, leaving the evacuation job to the local transit company.

Also it has been demonstrated that transit vehicles may serve as ambulances by placing stretchers on the seat rails. Some cities have ordered busses equipped to handle two tiers of stretchers.

Thus, the increasingly important rôle of transit in the present emergency, as well as attaining an even greater degree of importance if we are forced into an all-out war, is inspiring the industry leaders both on a local and national scale to intensify their efforts. Transit is jealous of its tradition. Transit is proud of its achievement, attained mostly in face of adversity.

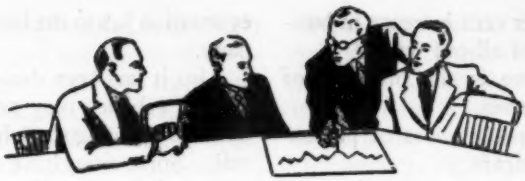
But transit, ailing though it may be from accumulated ills, is facing the present crisis with renewed strength and determination, realizing full well that it has the know-how, the courage, and the ability to do the job. All that is needed is the understanding help from both national and local officials.

"AMERICANS don't like to be told to stand in line. They don't like to be pushed around. I don't think Americans are going to let any government tell them how to live their lives from the cradle to the grave. All our history points in the opposite direction.

"I believe those of us who recognize the trend toward statism can reverse it, but we must work at the task. Our system doesn't need defending. It needs understanding. . . .

"The American idea of industrial competition—the idea that has made our nation the most productive on earth—is competing for survival against a theory that government-dictated controls would work better. That theory has been tried many times in many lands. It has never worked. Even its half-successes have never given any people anything like the good life they enjoy in America."

—A. W. PEAKE,
President, Standard Oil Company of Indiana.



Fringe Benefits in Utilities

Public utilities have long been far in the lead of those industries which have provided retirement and other employee benefits not strictly tied to the take-home pay check. Here is an analysis of fringe benefits prevailing in utility employment.

By MARION HAMMETT*

Public utilities, as we all know, lie at the heart of our economic system. Earnings of workers in this industry are important indicators of the general wage levels in local communities as well as in the broader economic picture.

It would be difficult to imagine a modern community without utilities. The family's daily stand-bys—cooking units, radios, vacuum cleaners, dishwashers, toasters—all these things which we so take for granted, function because of utilities. Try and imagine a wood-burning stove, the old laundry tub in a modern apartment house or home.

Even a temporary cessation of electricity during a thunderstorm upsets a family enormously. Candles are somehow found, the children complain because the television isn't working. Daddy gripes because dinner is late. Until the electric lights go on again, the entire life of the modern family is disrupted.

The functioning of the utility industry employees makes life pleasanter and easier for all of us. In return for their work, the industry pays them a wage which is above the average in manufacturing industries. Utility workers received a weekly average of $67.17, as against $61.99 in manufacturing in October, 1950, according to the Bureau of Labor Statistics.

In addition to these earnings, employees in the utility industry, as in many other industries, received "fringe" or nonwage payments. According to a study made by the Chamber of Commerce of the United States in 1949, in the case of 186 companies, these nonwage benefits amounted to about $505 extra a year to each employee. This study shows that in the case of the utility industry (gas, electric, water, telephone, etc.) 18.8 per cent of the payroll was paid

*For personal note, see "Pages with the Editors."

in "fringe" benefits to employees in addition to wages and salaries.

This study breaks this percentage down as follows: About 3 per cent for Social Security, workmen's compensation, and similar payments; more than 9 per cent for such items as insurance, pensions, purchase discounts, rest and lunch periods; about 5 per cent for holidays and paid vacations and the like; and less than 1 per cent for bonuses, profit-sharing, and other "incentive" payments.

Fringe issues came to the front during the war years—1942-45—when wages were stabilized. In order to prevent strikes during those years when uninterrupted production was essential and wages more or less frozen, the National War Labor Board granted a variety of nonwage benefits to employees.

Even after the war was over, more and more unions demanded pensions and other fringe benefits. Until this January, the benefits from Social Security were only $24 a month on the average. Paid vacations, sickness and accident benefits, dismissal pay provisions, union security—all these clauses are now common in collective bargaining agreements.

Pensions and Insurance Benefits

BENEFITS such as pensions and insurance are being granted employees in industry to a greater extent than ever before. The utility industry was one which was far more progressive in granting these benefits than most others. However, since this is not generally known, it would be well to take a look at the picture as a whole.

According to a report put out by the Bureau of Labor Statistics of the U.S. Department of Labor, on December 29, 1950, at least 7,650,000 workers were covered by collectively bargained pension or social insurance benefits by mid-1950. The extent of benefit coverage—more than double that found in 1948 — reflects the widespread movement of the last two years on the part of employers and unions to establish new programs. In some cases existing pension or insurance benefits were brought within the scope of labor-management agreements.

Pension plans now cover more than five million workers, according to the U. S. Department of Labor. This is three times the number covered two years ago. In the case of insurance and pension plans, the utility industry can well be proud of itself. Safety provisions for employees are provided by the industry to a greater extent than in any other in the country.

In most instances the cost of the pension or "health and welfare" plan is financed solely by the employer, the survey disclosed. This was particularly true for pensions. Of the 4,800,000 workers for whom data were available on the method of financing, 80 per cent were covered by noncontributory or employer-financed pension programs. Social insurance benefits, financed solely by the employer, covered about 60 per cent of the workers included under such collectively bargained plans. The remainder were financed jointly by contributions from workers and their employers.

LIFE insurance ranks first among individual insurance benefits most

frequently provided in contracts, in terms of the workers covered. Next comes hospitalization, surgical and/or medical; accident and sickness and accidental death and dismemberment.

Among the industries in which large numbers of workers are covered by some type of employee benefit program under labor-management contracts, metal products (including steel, auto, and machinery) accounted for nearly two and one-half million. Almost one and a half-million workers each are covered by plans in the textile, apparel, and leather industries and in the transportation, communication, and other public utility (except railroads) group of industries.

Insurance and health plans which are employer-financed were characteristic of the textile, apparel, and leather industries; the lumber and furniture; printing and publishing; mining and quarrying; and trade, finance, insurance, and service industry groups. Employer-financed pension plans predominated in the textile, apparel, and leather; printing and publishing; stone, clay, and glass; and mining and quarrying industries.

The government survey disclosed that practically every major union in

TABLE I

WORKERS COVERED BY HEALTH AND WELFARE PLANS[1] UNDER COLLECTIVE BARGAINING AGREEMENTS, BY MAJOR INDUSTRY GROUPS, AND METHOD OF FINANCING[2]
(Mid-1950)

			Method of Financing					
	Total		Employer Only		Jointly Financed		Undetermined	
Industry Group	Workers	Per Cent	Workers	Per Cent	Workers	Per Cent	Workers	Per Cent
Food and Tobacco	195,000	100.0	146,000	74.9	41,000	21.0	8,000	4.1
Textile, Apparel, and Leather	1,401,000	100.0	1,268,000	90.5	37,000	2.6	96,000	6.9
Lumber and Furniture	102,000	100.0	83,000	81.4	15,000	14.7	4,000	3.9
Paper and Allied Products	158,000	100.0	37,000	23.4	114,000	72.2	7,000	4.4
Printing and Publishing	63,000	100.0	54,000	84.8	9,000	14.3	[3]	[4]
Petroleum, Chemicals, and Rubber	430,000	100.0	90,000	20.9	315,000	73.3	25,000	5.8
Metal Products	2,324,000	100.0	350,000	15.1	1,678,000	72.2	296,000	12.7
Stone, Clay, and Glass	124,000	100.0	39,000	31.5	85,000	68.6	[3]	[4]
Mining and Quarrying	492,000	100.0	474,000	96.3	15,000	3.1	3,000	[4]
Transportation, Communication, and Other Public Utilities[5]	1,248,000	100.0	880,000	70.5	211,000	16.9	157,000	12.6
Trade, Finance, Insurance, and Services	294,000	100.0	238,000	81.0	33,000	11.2	23,000	7.8
Unclassified	297,000	100.0	231,000	77.8	47,000	15.8	19,000	6.4
Total	7,128,000	100.0	3,890,000	54.6	2,600,000	36.5	638,000	8.9

[1] Includes one or more of the following types of benefits: life insurance, death, accidental death and dismemberment, accident and sickness (but not sick leave or workmen's compensation), cash or services covering hospital, surgical, maternity, medical care.

[2] Data based on information for 70 AFL unions, 29 CIO unions, and 31 unaffiliated unions. Also includes scattered AFL Federal labor unions and CIO local industrial unions and unaffiliated unions confined to a single plant or establishment.

[3] Less than 1,000.

[4] Less than one per cent.

[5] Excludes railroads.

the country (excluding unions representing railroad and government employees for whom special Federal legislation exists) had negotiated, to some extent, pension or "health and welfare" programs.

Of the total coverage of 7,650,000 workers, slightly more than one-third (35 per cent) were under plans of unions affiliated with the American Federation of Labor. About 47 per cent were included under benefit programs negotiated by CIO affiliated unions and the remainder by unaffiliated or independent unions.

Tables I and II, pages 346 and 348, respectively, will give the reader an idea of how different industries stand in relation to health and welfare plans as well as in the case of pension plans.

Paid Vacations

More liberal paid-vacation benefits provided by current collective bargaining agreements have been one of the outstanding features in the development of labor-management relations in the last decade. This was due in part to the pattern set by the National War Labor Board during World War II. In addition to this, greater efficiency, improved technology, and increased productivity in American industry made it possible to grant paid vacations.

Provisions granting maximum vacation periods of two weeks or more have come to be widely accepted features of collective bargaining. A Bureau of Labor Statistics survey of collective bargaining agreements in effect in late 1948 and early 1949 reveals that 93 per cent of the agreements analyzed granted workers some type of vacation with pay. These agreements covered almost three million workers.

Nine out of ten agreements having vacation provisions stipulated two weeks or more as the maximum time allowed, and 30 per cent specifically provided for more than two weeks after specified periods of service.

In contrast, an earlier study by the bureau showed that in 1944 only 1.5 per cent of the unionized plants covered gave maximum vacations of over two weeks. The earlier survey also showed that 63 per cent of the plants provided maximum vacations of one week or less; in the present survey, fewer than 5 per cent of the agreements had such a provision.

Significant features of vacation provisions in collective bargaining agreements on which information was obtained in the later survey are the length of the vacation period granted; the type of plan, whether "uniform" for all eligible employees or "graduated" according to length of service; the relationship between earnings and the vacation granted; and the method adopted for computing vacation pay.

The trend toward longer vacation periods was definitely marked in the agreements studied, whether analyzed as a whole or by major industrial groups. Among industries in the manufacturing group with 10 or more contracts in the sample, the petroleum and coal products industry had the greatest percentage of contracts providing vacations of more than two weeks—36 out of the 43 agreements analyzed having such provisions.

A "uniform" vacation plan provides "flat" or equal vacations of the

TABLE II

WORKERS COVERED BY PENSION PLANS UNDER COLLECTIVE BARGAINING AGREEMENTS, BY MAJOR INDUSTRY GROUPS, AND METHOD OF FINANCING[1]

(Mid-1950)

			Method of Financing					
	Total		Employer Only		Jointly Financed		Undetermined	
Industry Group	Workers	Per Cent	Workers	Per Cent	Workers	Per Cent	Workers	Per Cent
Food and Tobacco	87,000	100.0	56,000	64.4	17,000	19.5	14,000	16.1
Textile, Apparel, and Leather	654,000	100.0	617,000	94.3	30,000	4.6	7,000	1.1
Lumber and Furniture	14,000	100.0	10,000	71.4	....	..	4,000	28.6
Paper and Allied Products	140,000	100.0	66,000	47.1	74,000	52.3	[2]	[2]
Printing and Publishing	17,000	100.0	16,000	94.1	1,000	5.9	..	..
Petroleum, Chemicals, and Rubber	361,000	100.0	153,000	42.4	194,000	53.7	14,000	3.9
Metal Products	2,011,000	100.0	1,499,000	74.5	277,000	13.8	235,000	11.7
Stone, Clay, and Glass	66,000	100.0	60,000	90.9	6,000	9.1	..	..
Mining and Quarrying	466,000	100.0	462,000	98.2	4,000	[3]	..	..
Transportation, Communication, and Other Public Utilities[4]	1,024,000	100.0	756,000	73.8	249,000	24.3	19,000	1.9
Trade, Finance, Insurance, and Services	71,000	100.0	33,000	46.5	35,000	49.3	3,000	4.2
Unclassified	212,000	100.0	100,000	47.2	106,000	50.0	6,000	2.8
Total	5,123,000	100.0	3,828,000	74.7	993,000	19.4	302,000	5.9

[1] Data based on information for 52 AFL unions, 23 CIO unions, and 22 unaffiliated unions. Also includes scattered AFL Federal labor unions and CIO local industrial unions and unaffiliated unions confined to a single plant or establishment.
[2] Less than 1,000.
[3] Less than one per cent.
[4] Excludes railroads.

same duration for all employees who qualify. "Graduated" plans provide for a varying number of days or weeks, depending upon the individual worker's length of service. In collective bargaining, employers and employees have tended to agree on the desirability of graduated plans.

A good many employers regard graduated vacations as a means of reducing turnover in their plants and as a reward to those who remain in their employ over a longer period of time. Unions, on the other hand, recognize that the graduated plan offers a means of increasing the total vacation time which employers are willing to grant.

An employer, for example, may consider it financially impossible—or he may be reluctant—to grant 3-week

vacations to all his workers. However, he may find that a proposal for granting three weeks' vacation to some of his more stable employees and less than three weeks—or even less than two weeks—to other employees would be practicable. More than 80 out of every 100 agreements analyzed provided for graduated plans.

In the case of the electric and gas industries, out of the 6 agreements analyzed, 5 were in the graduated vacation plan category. The most common service requirement, in the agreements surveyed, was fifteen years' service in order to get a maximum of three weeks' vacation with pay.

None of the 1,184 agreements calling for graduated vacation periods required employees to accept less compensation than would normally have been earned if employees had worked during the vacation period. The following clause is typical of a vacation clause which can be found in collective bargaining agreements:

> Employees with less than four years of service as established by seniority records shall be entitled to a vacation of one week with pay of forty hours. Employees with more than four years' service as established by seniority records shall be entitled to a vacation of two weeks with pay of eighty hours. Employees with more than ten years' service as established by seniority records shall be entitled to a vacation of two weeks with pay of one hundred hours.

Prevalent methods of calculating vacation compensation in some of the agreements were of three types:

(1) The average earnings (hourly or weekly) were determined for a past period (often the quarter-year period preceding the start of the vacation season). These averages were then applied to the hours or weeks of vacation granted.

(2) Straight-time pay is provided for a specified number of hours. For example, a vacation of one week is compensated by pay equal to forty hours at the straight-time hourly rate. This method is sometimes combined with the first method in calculating vacation pay. Thus, one agreement stipulated that hourly paid employees shall receive pay "computed at the straight-time hourly rate of the employee's regular job as of June 1st," and the number of hours for which pay is given is obtained by averaging the hours worked per week during a specified period in the contract.

(3) Vacation pay is determined by applying a percentage factor to the employee's earnings over past periods of specified length. Such periods may vary from as little as four weeks to as much as one year. The figures most commonly applied to vacations of one, two, and three weeks are 2, 4, and 6 per cent of the preceding year's earnings, respectively.

We have already mentioned that the utility industry leads all others in having safety clauses in agreements. These are for the prevention of accidents. Regular meetings are held by committees to set up rules for the employees.

Dismissal Pay

Some collective bargaining agreements have dismissal pay clauses to alleviate hardship resulting from

loss of employment due to factors beyond a worker's control. Accordingly, labor-management contracts have included provisions ranging from notice of a specified duration to employees before lay-off to substantial lump-sum payments to workers separated from their jobs, and pensions to aged or permanently disabled workers.

Relatively few labor-management agreements, however, currently include specific severance or dismissal pay clauses. A recently completed Bureau of Labor Statistics analysis of a sample of over 2,100 agreements showed that only 168, or 8 per cent of the contracts studied, stipulated that workers losing their jobs through no fault of their own should receive separation allowances. However, all indications are that the proportion of agreements providing for dismissal clauses are increasing somewhat.

Union Security

A SURVEY of 2,159 collective bargaining agreements analyzed showed that half of them had union security clauses. This means that workers covered by the contracts either must be union members at the time of hiring or become union members within a specified period after starting work. In addition, almost two-thirds of the agreements examined called for some type of check-off of dues alone, or of dues and other union assessments.

Union security clauses may be classified broadly into three major categories—union shop and its variations, membership maintenance, and sole bargaining. Of these three types, the union shop was most prevalent among the agreements studied. Union shop agreements require that all or nearly all employees in the collective bargaining unit be members of the union.

"Maintenance of union membership" agreements stipulate that all employees who were union members when the contract became effective or join the union while the contract is in effect, must remain union members in good standing during the life of the contract. "Sole bargaining" contracts are those in which the union is recognized only to the extent that it is accorded the right to bargain for all employees in the unit, irrespective of whether the workers are or are not members of the union.

OUT of the 115 agreements analyzed which covered the gas and electric industry, 49 per cent had union shop clauses, 23 per cent had membership maintenance, and 28 per cent had sole bargaining clauses. In the nonmanufacturing group of contracts, the proportion of agreements with check-off provisions ranged from a low of 30 per cent in the transportation industry to a high of 92 per cent in mining and crude petroleum production. The communications industry had the second highest rate in this group (85 per cent) and gas and electric industries had 56 per cent with check-off provisions.

Thus we can see that wages paid for work done in industry these days do not mean money wages alone. Additional benefits in the form of "fringe" benefits are given employees and these mean a great deal to the present-day worker.

The Power Embargo in Maine

Over forty years ago a law was passed in Maine to forbid the exportation of power. What has been the effect of such legislation? In this day when embargo on state resources is being considered in other areas, and in connection with natural gas, this is a thought-provoking question.

By LINCOLN SMITH*

THE survey of northeastern natural resources recently undertaken by the New England-New York Inter-Agency Committee set up by President Truman without congressional action, focuses attention on Maine's Fernald Law, the only drastic power embargo law in the country. According to Federal Power Commission estimates, Maine possesses about 65 per cent of the undeveloped hydroelectric power in New England; hence regional power development and administration are impossible in the Northeast as long as this state policy continues.

Last year certain events in Maine pointed to a possible relaxation of the embargo law. Governor Frederick G. Payne supported a New England Development Authority compact which might well have required amendment to the Fernald Law. Before the September elections numerous candidates for the legislature from both parties came out for modification or repeal of the law. Public power policies were not then involved. Recent national events, however, appear to have rallied support in Maine rather solidly for retention of the embargo policy. The Fernald Law is now seen as Maine's bulwark of defense against Federal "encroachment" on state prerogatives and against possible attempts to "federalize natural resources."

The law was passed in 1909 and its original purposes were: (1) to prevent out-of-state corporations from controlling Maine power; (2) to make Maine a great industrial state by attracting new industries through cheap

*For personal note, see "Pages with the Editors."

power; and (3) to have power available to aid rural electrification. As a corollary to the first tenet, when long-distance transmission lines became practical, the concept emerged that the law would prevent Federal control of Maine power because that power cannot participate in interstate commerce.

PRESIDENT Theodore Roosevelt's Conference of Governors in 1908 ushered in a conservation era throughout the United States. Maine's forests virtually were depleted and it was argued that the state's last great natural resource should be preserved for its people. The late Edward P. Ricker, pioneer in Maine's tourist industry and ardent supporter of the Fernald Law, claimed that unless a power embargo were passed, "Maine would be merely a power station for Massachusetts or Connecticut, employing but few hands to tend dams and stations, instead of doing what Maine should do—develop great industries to utilize the power on the spot, the same as is being done in the few industrial water-power centers that we now have and which are adding so greatly to the wealth and prestige of Maine.[1] Propaganda in the form of saving the power for the people of Maine created a political issue which appealed to the voters. The political parties, however, have not yet divided on the issue.

The Fernald Law is the most drastic of nonexport laws in that the public utilities commission has no discretion in allowing power to be transmitted. Special permission must be granted by the legislature. The law refers to hydroelectric power, but not to electricity generated by steam. It applies to corporations only, not to private individuals, partnerships, or trusts.[2] The other exceptions are electricity on railroads, and, in order to preclude retroactivity, a "grandfather" clause permits those engaged or empowered to engage in such transmission before 1909 to do so.

Opposition to the Fernald Law

MAINE'S particularism in power is a firm tenet in its public power policy, yet some opposition to it exists. Senator Warren opposed passage of the law in 1909 because it was unwise and restrictive legislation.[3] He claimed it was just as illogical to argue that new industries would locate in Maine simply because of cheap power as it would be to keep lumber and potatoes in the state to force people to migrate to Maine to build houses and eat potatoes.

In 1915 and 1917 bills were introduced in the legislature to give the newly established public utilities commission discretionary authority to permit interstate transmission with the right to terminate this grant upon two years' notice.[4] Passage of this amendment would have made the Maine policy similar to other non-transmission laws. The proposals were defeated on the contention that they would be only the entering wedge for unlimited transmission which

[1] Edward P. Ricker, *Let Maine Keep Her Birthright* (1921), page 6.

[2] Through these loopholes Maine legally exports some power to New Hampshire and Canada, and also imports a lesser amount.

[3] Maine *Legislative Record*, 1909, pages 1115, 1116.

[4] Maine Senate Documents, 1915, No. 431; Maine *Legislative Record*, 1917, pages 1323-1335.

would make Maine a power station. Also, some people thought that once surplus power got across state lines and into interstate commerce it would be under national jurisdiction and the state would have no authority to recall it. This belief, however, failed to take in account that a law which *prevents* a commodity from getting into interstate commerce is probably an even more drastic regulation of such commerce.

After the Insull interests became established in Maine, some of the power companies began to agitate for the right to transmit surplus power to other states. The most prominent bill introduced in 1927, the "divorce system," was an example of shrewd Yankee ingenuity which attempted to separate the generation of hydroelectric power from its transmission so that the surplus could be sold outside yet under state control. A transmission company would be created to do an interstate business under national control. It could, however, be prohibited from generating any power and could obtain it from generating companies, locally controlled, only as approved by the public utilities commission. Such a provision would be grafted into the generating company's charter. Thus Maine woud keep control of the source of power. This bill passed in the legislature, subject to a popular referendum, but was vetoed by Governor (now U. S. Senator) Brewster, primarily because the attorney general advised that the act was likely to mean loss of state control. In 1929 the power companies came back with a similar measure, to which was added an excise tax of 4 per cent on the gross operating revenues of the companies receiving permission to sell surplus power.[5] This bill was passed, with a referendum measure attached.

THE vote was close in nearly all counties, but in spite of an extensive campaign[6] the verdict was to retain the complete embargo by a vote of approximately 64,000 to 54,000. The companies attributed defeat to the fear that if power went out Maine would become a power station, that industries would not come in, that if a company could sell power outside it would do so rather than develop Maine. This omits, however, the strong rural sentiment which opposed

[5] Maine *Legislative Record*, 1929, page 910.
[6] The testimony given at this hearing on March 16, 1932, may be found in *Utility Corporations Report*, No. 42, SD 92; Pt. 42; 70th Congress, 1st session, pages 52-87.

¶ "THE *survey of northeastern natural resources recently undertaken by the New England-New York Inter-Agency Committee set up by President Truman without congressional action, focuses attention on Maine's Fernald Law, the only drastic power embargo law in the country. According to Federal Power Commission estimates, Maine possesses about 65 per cent of the undeveloped hydroelectric power in New England; hence regional power development and administration are impossible in the Northeast as long as this state policy continues.*"

the sale of power to other states when many farmers at home lacked it. Some opposition to corporate enterprise was doubtless an additional factor.

The Maine power companies accepted the result of the voters' verdict, and have not and will not reopen the issue. At that time a large amount of secondary power was running to waste, but the companies apparently preferred to forego extra profit and abide by the will of the voters, who, after all, control their corporation charters.

In 1947 several bills were introduced in the legislature for the acceptance of Federal funds for public power development and repeal of the Fernald Law. On this occasion the president and the legislative agent for the Central Maine Power Company appeared at the committee hearing in opposition. Said the latter: "There is no demand for the repeal of the Fernald Law in Maine. . . . It stems from a source which has no direct or indirect interest in the welfare of the people of Maine—a Boston newspaper."[7] President William B. Skelton said: "We are opposed to the repeal of the Fernald Act, because it will destroy control by the state over a natural resource that is a magnet to draw industry to the state." Needless to say, the public power and export power bills did not get far in the legislature.

BETWEEN 1929 and 1947 state and national power scenes were not static. Several large hydro developments in Maine were not always sufficient to supply the sharply accelerated industrial and domestic power loads. Much of the new demand was for firm power which had to be supplied by the installation of steam plants. Since the Fernald Law discouraged interstate interconnections, Maine could not import power during an emergency. Late in 1949 an interconnection was completed so that now Maine can import power if local supplies become inadequate. Public power and multiple-purpose developments now loom on the horizon, and recent FPC blueprints have little TVA's dotted over five New England states, with Maine headquarters for more than half the supply.[8]

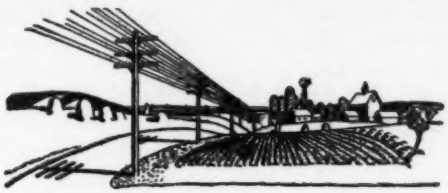
To date, however, northern New England at least has been emphatic in its opposition to national power policies. The interests of the power companies and desires of the people in the area appear almost to coincide in their rejection of public power. Furthermore, the jurisdiction of the Federal Power Commission was increased and new personnel in the last two decades has invigorated its policies in several directions. The Maine power companies, thanks to the Fernald Law, are now among the few large utilities in the country not engaging in interstate commerce and therefore outside the jurisdiction of the FPC. The power companies are perfectly content for this to continue.

Four Decades of the Fernald Law

AFTER forty-two years of its existence, it remains to evaluate the original purposes for the passage of the power embargo law. The law did

[7] *Portland Press Herald*, March 19, 1947.

[8] FPC "Memorandum on Information Requested by Senator Leverett Saltonstall." Mimeographed, Washington, February, 1949.



Distribution Expense and Rural Power

"THE argument that power should be kept at home to make it available for rural electrification is untenable because the core of the whole rural situation is that the availability of power is not a factor in securing electricity for farmers. Rural electrification is hampered not because of a lack of electricity but because of the great expense in distributing it to rural areas."

not prevent out-of-state interests from controlling power during the era that the Insull group controlled all important power companies in the state except the Bangor Hydro-Electric Company, also a number of textile mills. Control was regained not because of the Fernald Law, but because the Insull empire crashed during the depression and Maine management had manipulated itself into strategic positions of control in the local hierarchy.[9]

It would be difficult to name many industries that came to Maine solely because of cheap power, and the reason is fairly simple—power is no longer a major factor in selecting sites for most industry. Economists often claim that the most important reasons for determining the location of industry are: (1) accessibility to raw materials; (2) proximity to market for the finished product; (3) adequate supply of dependable labor; (4) cheap power; and (5) financial assistance.[10] The fact that Maine is situated in the extreme Northeast, so far from the large markets, may tend to overcome the advantage of inexpensive power within the state. At least a large supply of cheap power was not a sufficient inducement to stop the southward migration of some industries in this era.

Although a century ago power was a controlling factor in attracting industry to a state, technological

[9] Lincoln Smith, "The Regulation of Some New England Holding Companies." *Land Economics*, August, 1949.

[10] The National Resources Planning Board divided the factors into transportation and nontransportation categories, with several subtopics not dissimilar to the above analysis. *Industrial Location and National Resources* (Washington, 1943), pages 329, 330. See also, *Power in New England.* A report of the power survey committee of the New England Council (Boston, 1948), page 68; Report to the Associated Industries of Massachusetts of Its Power Investigation Committee (Boston, 1924), page 99; Report of the Special Commission Relative to the Textile Industry and to prevent the removal thereof from the Commonwealth (Boston, May 12, 1950).

changes have lessened its importance. Before long transmission lines were known, industry had to seek power. With a more general use of electricity, mass production and increased efficiency lowered its cost. Almost simultaneously other manufacturing costs, labor, machinery, taxes, and capital charges began to increase. Unless power is a major factor in production, as it is in a few cases, notably in aluminum production where it is dominant, it is more important for new industries to locate with reference to the now controlling factors, proximity to markets and raw materials.

TWENTY years ago when the transmission issue was acute, the pulp and paper industry, the greatest industry in Maine, counted its power costs from 2 to 4 per cent of its manufacturing cost. The textile industry counted power costs at 1.3 per cent.[11] For all manufacturing industries in 1939, the figure would be about 3 per cent of all costs if one assumes that expenditure for fuel as electric energy is to be placed in this category.[12] These figures can be merely an approximation because it is difficult to isolate the power element where the finished product is the result of a long series of manufacturing processes, but they are sufficiently accurate for the contention here that power is now a relative and seldom controlling factor in determining the location of most industries. Manager Hamlin of the American Thread Company of Milo stated at the power hearing in 1929 that without exaggeration his company paid the Bangor & Aroostook Railroad more in freight charges per month than it cost to pay for power for his mill for ten years.[13] The power survey committee of the New England Council concluded that "except in a few industries the cost of power averages less than 2 per cent of the total value of manufactured products in New England industries. It is, therefore, obvious that the question of cheap power is not a determining factor in management decisions regarding location of business."[14]

Realizing, however, that a century ago Maine's industrial cities grew around sources of power, the people became very much "commodity conscious," even obsessed with the idea that power will make Maine an industrial state.

THE argument that power should be kept at home to make it available for rural electrification is untenable because the core of the whole rural situation is that the availability of power is not a factor in securing electricity for farmers. Rural electrification is hampered not because of a lack of electricity but because of the great expense in distributing it to rural areas. In the ordinary village or city, distribution of energy to residences averaged from 80 to 85 per cent of the total expense, while the generation of the power and its delivery to the switchboard made up 15

[11] These figures are based on a speech by Representative Edward E. Chase of Cape Elizabeth, who contributed some of the most incisive ideas in the debates. Maine *Legislative Record*, 1929, page 858.

[12] *Sixteenth Census, Manufactures*, 1939, Volume II, Part I, page 22ff.

[13] Hearing on Power Measures. Augusta, Maine, March 7, 1929, page 69.

[14] NEC Report, *op. cit.*, page 68.

to 20 per cent of the cost.[15] Distribution costs in rural areas, with long lines and fewer customers, were much greater. It was claimed that the Wyman dam at Bingham alone was capable of generating in one week enough electricity to supply all the unsupplied families of Maine for one year.[16]

Thus, the Fernald Law has not and cannot achieve its three original objectives. Its lone accomplishment in forty-two years has been to preserve Maine power for Maine people. To those who support a philosophy of particularism, this is a real achievement; to those who advocate regionalism, the Fernald Law constitutes an unnatural and isolationist power "Balkanization."

Maine and the New England Power Scene

MASSACHUSETTS has been forced to develop expensive marginal power projects and to resort to the use of substitutes for hydroelectric power at the same time that secondary power in Maine was running to waste. While Maine considers it a local matter and her good fortune to do as she wishes with her power, other states have had to undergo greater expense to obtain power when the saving of coal and oil were national defense measures.

Although the amount of economically feasible hydroelectric power potentially available in New England is highly controversial because of dissimilar bases for calculation, several recent sources, each applying its own formula, concludes that from 50 to 65 per cent of New England's latent power is in Maine. These include estimates of the Federal Power Commission, the power survey committee of the New England Council, and George H. Arris, a Providence, Rhode Island, authority. The wide range of discrepancy in these results and the reasons therefor concern primarily the specialists. Any state will produce less hydro power with single-purpose dams than with dual- or multiple-purpose developments. Other major differences concern independent power development at individual projects or an approach looking upon the entire river as the unit of development, and differences of opinion on the economic feasibility and political desirability of constructing dams which would create power for 20 or perhaps 50 per cent of the time.

AN estimate of Maine's undeveloped water power by the Maine Public Utilities Commission was made in 1940.[17] Economic feasibility was not considered. Some of the sites are highly desirable and already in the blueprint development stage, but others would flood out such valuable property above the dam that their importance is doubtful. A few are too remote for profitable development because they are in uninhabited areas and the cost of highways to make construction work possible would be excessive. A later report by the Maine commission stated that while Maine

[15] Maine *Legislative Record*, 1929, page 848. Although oversimplified, these figures are illustrative of the point.

[16] *Kennebec Journal*, Augusta, Maine, September 9, 1929. Since then the capacity of the dam has been increased considerably.

[17] *Ninth Biennial Report*, PUC Maine, 1939-1940, page 140.

had "numerous small water-power sites that could be used, they are not economically possible of development in competition with steam generation."[18]

The discrepancies in the various estimates are apparent but probably not actual. They are often inaccurately quoted; all might be reasonably comparable if considered as based on entirely different formulas. They show lack of agreement on objectives, and point to the need for a scientific study of New England power resources in which *both* national and state representatives *equally* participate.

Thus the New England-New York Inter-Agency Committee has an opportunity to make a positive and continuing contribution to wise power policy if both national and grass-roots interests and desires can be resolved.

Maine Policy in Perspective

At the dedication of Grand Coulee, President Truman called for more public power developments and referred to several regions, including New England.[19] The Federal Power Commission, asserting that 65 per cent of New England's potentiality is in Maine, said the nonexport law "constitutes an obstacle to widespread distribution and use of the potential powers of New England."[20] The commission also observed that New England people are unwilling to permit Federal development of multiple-purpose projects, and also suggested that the national government is not interested in single-purpose, individual projects. In the final analysis, however, Congress and not the FPC determines national policy on multiple-purpose dams. Nobody can predict how far Congress will go in accepting FPC blueprints—such dynamic factors as war or peace, prosperity or depression, "acts of God," political leadership, and climate of opinion will control.

Technological improvements in the production and distribution of power now make New England a natural power area. The states have recognized this recently by giving serious consideration to the creation of state, river, and regional power and/or development authorities. Some of these proposals which were scheduled for consideration in the 1951 legislative sessions have been postponed, pending the results of the survey of the New England-New York Inter-Agency Committee. Meanwhile New York and Vermont have warned that they are "watchful" of a plan to federalize New England resources; Maine and New Hampshire insist that this survey be made without any "preconceived notions" and that it must recognize the rights of the people.[21]

[18] *Twelfth Biennial Report*, PUC Maine, 1945-1946, page 17.

[19] *The New York Times*, May 12, 1950.

[20] FPC ms. *supra*, page 9.

[21] The Boston *Herald*, January 24, 1951.

Washington and the Utilities

Utility Controls Moving Up

THE recent announcement by the National Production Authority of cutbacks on the use of steel points up the need for getting ahead with the organization of emergency controls for the major public utility industry branches. So far, the Defense Electric Power Administration seems to be out in front with plans for obtaining "procurement assistance" from NPA for the electric utilities on such scarce commodities with respect to new construction.

But the gas division of Petroleum Administration for Defense held an organization meeting of the proposed gas industry advisory council in the Interior Department in Washington, D. C., on February 20th. On the same day, Brigadier General Arnold, chief of the NPA Communications Division, held the first meeting of the newly organized communications advisory committee, composed of representatives from Bell and independent telephone companies and the Western Union Telegraph Company.

DEPA already has issued two questionnaire forms, DEPA 2 and DEPA 3, on which electric utilities can notify DEPA of scarce aluminum and copper items, which will be necessary on specific major construction jobs. More recently, DEPA has issued a supplementary DEPA 3-S which includes steel and iron in the list of scarce materials, for which help may be needed to obtain deliveries from manufacturers and suppliers.

DEPA also is distributing forms, on request, to electric utilities qualified to apply for tax amortization certificates on special defense plant construction. These are reviewed and recommended by DEPA to the Defense Production Administration which finally issues the certificates, where granted.

THE lagging gas industry controls are expected to be stepped up, now that a start has been made in the way of appointing an assistant PAD deputy to take care of gas matters. He is R. H. Hargrove, president of Texas Eastern Transmission Corporation. At the same time, N. W. Freeman, vice president of Tennessee Gas Transmission Company, was invited to become director of the NPA Gas Division. The new gas industry advisory council will come into legal existence when Secretary Chapman finally obtains acceptances from the invitations now being issued. The full council is expected to number between fifty and sixty members, covering both the operating gas utilities and the pipelines. At the organization meeting on February 20th, several committees were appointed to carry on with the details of organization.

Over at the communications industry advisory committee meeting, there was likewise much discussion about obtaining definite assistance from NPA on the allocation of copper and other scarce materials. Task forces were appointed to work out specific programs. Among things still to be discussed was the chance of a limitation order, such as the telephone industry had during World War II under the old Star Production Board setup. (See page 362.)

It is becoming increasingly apparent, however, that all branches of the utility family will have to get on with plans to obtain definite allocations of materials—steel for pipelines, copper for wire, and so forth. At the rate the general defense order "DO" is becoming diluted, utilities

might find the materials cupboard bare in the months to come, unless some arrangement for earmarking supplies for construction is worked out.

WRPC Sparking More Water Laws?

VOLUME III of the report of the President's Water Resources Policy Commission came out last month ahead of Volume II—Volume I having been published and released last December. This Volume II will probably be the basis of a statutory draft which WRPC is said to be preparing for eventual submission to Congress.

Only a few Federal water and power experts have had a chance to inspect this draft, now in the last stage of formulation. And it may be subject to some pretty radical changes before it ever gets to Congress and is released for open inspection. But those who have seen it say that it goes pretty far. Its main feature is the proposal for establishing a sub-policy-making agency, independent of any other government agency, which would have complete sway over all water program policy now exercised by such defense agencies as Reclamation Bureau, Federal Power Commission, Army Engineers, Tennessee Valley Authority, and some other branches of the Interior Department.

The new board, which would be a sort of Federal Waterworks Commission, would "coördinate" (oh — that most prevalent word in Washington usage today—a word which like charity covers a multitude of something or other) everything the Federal government does or proposes to do with respect to flood control, hydroelectric development, public works, irrigation, pollution control, rivers and harbors, and so forth. In plainer words, anything touching on the subject of water, conservation, water usage, or water control.

The secondary feature of the proposed draft is rumored to be the subordination of the hydro licensing authority of the FPC to that of a mere administrative routine directed by the new board. All other existing Federal water legislation, contrary to or conflicting with the provisions of the new bill, would be modified or repealed.

GETTING back to Volume II and the legal basis for it, foregoing far-reaching legislative suggestion, WRPC insists that Federal laws covering water resources development have grown haphazardly. No single over-all Federal policy covering the comprehensive development of water and land resources has been developed. WRPC claims that some statutes of national application separately control various aspects of land and water development, while others are geared to a comprehensive approach, but focus attention on individual projects, specific areas, or single rivers.

The first volume of the report, "A Water Policy for the American People," was sent to the President last December 11th. It suggested the enactment of an over-all Federal law governing water and related resources development and recommended that all river basins be developed along a coördinated, multiple-purpose plan. The second volume, "Ten Rivers in America's Future," was submitted for release February 26th. A study of the Potomac river was included in this volume.

The report on water resources law was prepared by a staff of eleven attorneys, nine of whom were from Federal agencies having responsibilities in the water resources field. They worked under the direction of Bernard A. Foster, Jr., who served as general counsel.

The report reviews the growth of resources law through three periods—from the early nineteenth century up to World War I, when interest in conservation became intense; from World War I to the depression, when growing attention was given basin-wide development; and from the depression to the present time, when greater attention has been given comprehensive, basin-wide planning.

The report states that the basic demand for comprehensive development of all water and land resources has never

been met with a full answer. It concludes that the adoption of the recommendations suggested in Volume I will present few legal problems, the principal ones being those of draftsmanship.

In surveying water resources law, it was found that there is a great diversity in statutory authority for the collection of basic data, the first step in resources development, and that inequalities in the selection of projects often work to the detriment of the best public interests.

Based on these findings, the commission in Volume I suggested that a yardstick be established for measuring both the direct and indirect benefits from resources development projects.

The study points out how the availability of water influenced the development of this nation.

It is judicially established, the report stated, that the authority of the United States over waterways in the regulation of commerce is not limited to navigation control, but is as broad as the needs of commerce.

Interior's Annual Report

A new record in hydroelectric power capacity and production on multipurpose Federal reclamation projects was set during fiscal 1950, according to Interior Secretary Chapman. The announcement was made upon release of the department's annual report. According to the report, sales of electric energy during the past year totaled approximately 19,790,000,000 kilowatt hours, which brought in revenue of about $33,200,000. In 1949, Reclamation power plants produced 18,320,000,000 kilowatt hours of electric power. The revenue was $32,230,000. By June 30th, the total installed capacity was 3,218,400 kilowatts. This was an increase of 411,000 kilowatts above the 1949 total. Additional capacity of 663,000 kilowatts will be added in fiscal 1951, with nine new power plants under construction. There are currently 20 power plants in operation by the Bureau of Reclamation. These plants produced the power which in the past year was delivered to 26 municipalities, 7 state public agencies, 65 REA co-ops, 4 Federal agencies, 41 public utilities, 27 commercial and industrial users, and 34 privately owned utilities.

Transmission lines stretching 4,400 miles are in operation, the report stated, adding that construction is under way on an additional 2,000 miles of lines. Among the important projects completed during the year were four dams in the Missouri river basin, two dams in the Columbia basin, the Tracy pumping plant, and large sections of the Delta-Mendota and Friant-Kern canals of the Central Valley project, and Granby dam.

St. Lawrence Opposition Still Here

Secretary Chapman had a rough time of it during his appearance before the House Public Works Committee, advocating prompt passage of the St. Lawrence seaway-power bill. Chapman told the members that if the United States does not hurry up and get busy Canada might go ahead with the St. Lawrence seaway and power proposal on its own. But there were some members of the committee who seemed to think that might be a good idea.

When Chapman talked about the need for moving iron ore, the point was raised that a railway to Labrador could move such ores faster, at much less expense. And when Secretary Chapman began talking about power, Representative Pickett (Democrat, Texas), was concerned over the trade of the port of Houston. He ribbed the Secretary on the growing "public power empire" which Interior is building up. Chapman tartly denied any "empire" and minimized the proportion of Interior power investment ($2 billion plus) to private power company investment ($22 billion).

At the opening sessions, committee opposition to the St. Lawrence seemed to be equal to if not stronger in favor of the project.

Exchange Calls And Gossip

Communications Industry and Defense

THE meeting of an industry committee, council, or task group has generally been the kick-off signal for the beginning of a particular industry control program here in Washington since the first days of the present defense emergency. Up to that point, the officials designated to administer the program, have, for the most part, concerned themselves primarily with the organization of their departments and informal conferences with various industry consultants.

With this in mind it would appear safe to assume that the flow of telephone industry defense control information will flow more freely now that the telephone industry advisory committee has had its first meeting with National Production Authority (NPA) communication officials in Washington on February 20th. Representing the government at this meeting were Deputy NPA Administrator Glen Ireland, a former Pacific Telephone & Telegraph official, and Brigadier General Calvert H. Arnold, USA (Ret.), head of the NPA Communications Equipment Division.

The telephone industry (Bell and independent) was represented by G. G. Jones, Long Lines Department, American Telephone and Telegraph Company; Charles M. Mapes (AT&T); H. S. Osborne (AT&T); James E. Dingman, Bell Telephone Company of Pennsylvania; Fred G. Macarow, Chesapeake & Potomac Telephone Company, Washington, D. C.; Fred E. Norris, General Telephone Corporation, New York; R. A. Lumpkin, Illinois Consolidated Telephone Company; William C. Henry, Northern Ohio Telephone Company; Carl D. Brorein, Peninsular Telephone Company, Tampa, Florida; Frank S. Barnes, Rock Hill Telephone Company, Rock Hill, South Carolina; Benjamin S. Gilmer, Southern Bell Telephone & Telegraph Company; J. Raymond Peterson, Southwestern Bell Telephone Company; Rupert E. Shotts, Telephone Services, Inc., Chicago; and Ray Dalton, West Coast Telephone Company, Everett, Washington. Admiral Joseph R. Redman represented the Western Union Telegraph Company.

MATERIAL problems involving the shortages of critical materials—copper, zinc, and nickel, in particular—were brought to the attention of the NPA representatives. The industry group indicated that many of its orders for materials have not been met because of the impact of defense rated orders for the same materials.

Further use of substitutes and conservation in order to save critical materials for the most essential projects were discussed. Substitutes and conservation measures made by some companies, according to the committee, are: reduced sizes of wire, cable, and cable coatings; substitution of synthetic rubber for natural rubber; reductions of the tin content in solder; and use of lead for zinc in some galvanized coating on hardware.

There were some suggestions from industry representatives that the industry be given DO ratings on some of their orders for materials to be used in defense-connected projects. At this point, NPA officials told the group that DO

ratings are being kept to a minimum until a controlled materials plan can be put into effect. They further noted that all of the NPA orders contain provisions for adjustment in case of undue hardship.

Two task groups were appointed to carry out further studies for the committee. The duties of the respective groups are:

1. To consider how the forthcoming NPA order on MRO (maintenance, repair, and operations) applies to the communications industry, and, if necessary, make recommendations for possible future changes in the order.
2. To submit estimated industry requirements to NPA for the inclusion in the controlled materials plan which is now being developed.

Apparently, from what was said regarding the controlled materials plan and the MRO order, these two impending orders from NPA should more or less put the material operations of NPA on a more stable and definitive basis. NPA from its beginnings has had to put first things first and has made the nearest thing to a priority system, the DO rating, applicable to only defense and other extremely strategic industry operations. Hardship provisions were incorporated in all other orders to relieve some of the sting that was sure to come from any sweeping orders such as those dealing with steel, copper, and aluminum. It now appears that based on experience up to this point, plus a clarification of the defense needs in the past few months, NPA is prepared to codify its regulations on a more specific basis.

Down with the State Commissions?

WHEN the Federal Communications Commission first announced its show-cause order to the American Telephone and Telegraph Company, requesting that AT&T give reasons why a Long Lines rate reduction should not be put into effect, a spokesman for the Communications Workers of America (CIO) announced that the union did not intend to intervene in the proceedings but would, of course, follow them with close attention. Evidence of this was seen recently when the CWA issued a statement calling for the nation-wide regulation of telephone rates by a single Federal agency.

The executive board of the CWA passed a resolution which called on Congress to hold hearings "to determine how best to proceed legislatively" in accomplishing this objective.

Among the "whereases" in the resolution were those that stated: "injustices and confusion (exist) under present regulations whereby rates for telephone service in 46 states and the District of Columbia are regulated by completely separate agencies having no connection with each other nor with the Federal Communications Commission which regulates interstate telephone business . . . two states, Iowa and Texas, make no attempt at telephone rate regulation within their borders but leave such matters to regulation by municipalities"; and "this hodgepodge of regulation results in fantastic differences in rates for telephone calls made over identical, or almost identical, distances."

The resolution also noted that Senator Ernest McFarland, chairman of the Senate Communications Subcommittee, wrote to the FCC about the disparity problem on January 30th. It will be recalled that the Senator, in his letter to the FCC, asked the commission for legislative recommendations, if any were required to correct the situation. The resolution appears to suggest the CWA's solution to the problem.

"Hush-A-Phone" Hushed

THE manufacturers of the "Hush-A-Phone," a cup-like device which snaps on the telephone transmitter and is supposed to give privacy and quietness to the user, have been seeking to compel AT&T and its Bell system companies

to permit the attachement of the device to telephone instruments. It was up to the FCC to direct the Bell system to permit the use of this device, but the commission declined. It concluded:

> . . . Inasmuch as the unrestricted use of foreign attachments by the public may result in impairment to the quality and efficiency of telephone service, damage to telephone plant and facilities, or injury to telephone company personnel, it is necessary and proper that the use of foreign attachments be subject to control by the defendants through reasonable tariff regulations. . . . it is significant that as the amount of privacy derived from the Hush-A-Phone increases, the user's speech becomes increasingly unintelligible. The unrestricted use of the Hush-A-Phone could result in a general deterioration of the quality of interstate and foreign telephone service. Accordingly, it is not an unjust and unreasonable practice upon the part of the defendants to prohibit its use . . .

Commissioners Walker, Hyde, Jones, and Hennock took the above action on February 14th. Commissioners Coy, Webster, and Sterling did not participate.

The FCC, the Bell System, and Senator McFarland

THE strong objections to the proposed Federal Communications Commission show-cause order to the Bell system concerning reduction in interstate telephone rates have had some results. The final outcome of the matter is still in doubt. These objections, raised mainly by the National Association of Railroad and Utilities Commissioners on behalf of the state commissions, and by Senate Majority Leader McFarland (who had espoused the NARUC's cause), appear to have deterred the FCC from immediate consideration of the rate reduction. The hearings, originally scheduled for March 23rd and April 16th, respectively, have now been postponed to July 16th and August 20th.

The commission took this action on February 14th (Commissioners Walker and Hennock dissenting) and at the same time the acting chairman (Walker) addressed a letter to Senator McFarland in answer to the Arizona solon's objection to an impending interstate rate reduction. The Senator had maintained such a reduction would only increase the present disparity existing between interstate and intrastate telephone rates. In his letter Walker gives no indication that the commission is prepared to relent from its present policy of looking only to the interstate features of the long-distance rate problem, but does point out that the commission is willing to engage in a joint coöperative examination of separation method (the formula of assigning rate base assets for purposes of establishing an interstate rate base) with the NARUC. He further states that pending this examination "and in order to observe the trends in revenues and expenses" the commission has taken the action postponing the hearings.

ALTHOUGH the FCC action was not conclusive, it was an acquiescence on the part of the commission to these very strong objections—objections from sources other than the chief party concerned; namely, the American Telephone and Telegraph Company. Four months is a pretty long time. It is conceivable that more important developments may occur.

One thing that may come about is some attempt to get to the problem through legislation. In his letter to the commission, McFarland closed with the suggestion that the FCC submit recommendations, if any, for legislation on the subject so that the Congress could "get started on righting this wrong." In his reply to McFarland, Walker states that the commission at this time "has no legislative proposals to recommend." With McFarland open to suggestion on this question, it may be that the next four months will produce legislative recommendations from other sources which may strike the Majority Leader's fancy.

Financial News and Comment

By OWEN ELY

Important Holding Company Developments

In recent weeks there have been important developments with respect to three public utility holding company systems, which we summarize below.

American & Foreign Power on January 16th filed a new plan with the SEC. The capitalization of the parent company, if the plan is consummated, would include $50,000,000 5 per cent debentures due 2030 (now outstanding), $67,000,000 new 4½ per cent junior debentures due about 1985, $10,000,000 bank loans, and 6,637,000 shares of new common stock. The parent company, Electric Bond and Share, would receive in exchange for its various holdings of Foreign Power securities, 56½ per cent of the new common stock. Each share of the $7 preferred stock would receive $90 junior debenture 4½s and 3.6 shares of new common stock (compared with $110 debentures and 2⅛ shares of common under the old plan). The $6 preferred would receive $80 debentures and 2.9 shares (*versus* $100 debentures and 1¼ shares under the old plan). The second preferred stock would receive 65/100 shares of common *versus* 3/8 share under the old plan. The common stock would get 1/50 share of common, the same as under the old plan, and the warrants would be canceled.

To appraise the break-up values of the old securities under the plan it is necessary to assign values to the new debenture 4½s and the new common stock. The old debenture 5s currently sell around 98, and the shorter (but junior) 4½s might sell about ten points lower or around 88, it is estimated. *Pro forma* earnings for the new common stock in the calendar year 1950 are estimated at $2.59 on a consolidated system basis and $1.44 on a parent company basis. Assuming continuance of such earnings and also a reasonable flow of exchange from Latin American countries to New York, a $1 dividend rate would appear reasonable. An estimated price of 13 for the new stock reflects a potential yield of 7.8 per cent and price-earnings ratio around 5.

Using 88 and 13, respectively, for the new securities, the indicated break-up values for the old securities would be as follows: $7 preferred, $126; $6 preferred, $108; second preferred, $8.50; and the common stock, 26 cents. Current

Department Index

prices for the second preferred and common stocks remain substantially out of line with these estimates, indicating apparent confidence that the plan may be modified in favor of the junior issues. Considering the fact that the present plan gives more favorable treatment to the second preferred than the old plan (in approving which the SEC reduced the allocation to the second preferred), it seems difficult to justify these hopes on a statistical basis.

STANDARD GAS & ELECTRIC COMPANY also recently filed a new dissolution plan with the SEC. The plan includes four steps: Step I will effect the retirement of the $7 and $6 prior preference stocks. Step II is intended to effect the liquidation and dissolution of Standard, and the delivery to the holders of its $4 cumulative preferred stock and common stock of shares of Philadelphia Company common. Step III will eliminate the minor subsidiaries of Philadelphia and, if feasible, the recently reorganized Pittsburgh Railways Company. Step IV proposes either the dissolution of Philadelphia Company and the distribution to its common stockholders of stock of Duquesne Light (its major asset) or, if the transit company shall not have been disposed of as part of Step III, the disposition by Philadelphia of most of its holdings in Duquesne and its continuance in existence primarily as a holding company for Railways, until the disposition of the latter.

Step I in the plan proposes that the presently outstanding 2,152,828 shares of common stock of Duquesne without par value will be changed or reclassified into 5,750,000 shares of $10 par common stock, all of which will be owned by Philadelphia. Philadelphia will then distribute to its stockholders, including Standard, one share of Duquesne common for each five shares of Philadelphia common, so that Standard will thus receive 1,004,958 shares.

Using substantially all of these shares (together with nearly all of Standard's holdings of Wisconsin Public Service and Oklahoma Gas & Electric), Standard will retire its prior preference stocks as follows: Each share of the $7 prior preference stock (with arrears) will receive 4.3 shares of Wisconsin, 2.9 shares of Oklahoma, and 2.1 shares of Duquesne. The $6 prior preference stock will receive 4 shares of Wisconsin, 2.6 shares of Oklahoma, and 1.7 shares of Duquesne Light.

OKLAHOMA is the only one of the three stocks which has minority stock in the hands of the public, so that a market price is available—it is selling around 21 on the New York Stock Exchange. To arrive at an estimated break-up value for the two packages of securities, it is necessary to assign values to Wisconsin and Duquesne. Wisconsin is currently paying $1 but is expected to increase its rate to $1.10 per share. Based on the recently increased number of shares, now 2,000,000, recent share earnings approximated $1.42. Based on these earnings and the indicated $1.10 dividend rate, a potential market price around 16 would seem reasonable.

Evaluing Duquesne is more difficult. The company recently put into effect a rate increase of $7,500,000, although a final decision has not yet been received from the Pennsylvania state commission. Earnings for the twelve months ended November 30, 1950, approximated $1.62 a share after adjustment of Federal income taxes to a separate return basis. If these figures are adjusted for the rate increase (only about half of which would be carried down to net income because of larger depreciation expense and income taxes), share earnings would be increased to approximately $2.25 per share. Duquesne is a large company, and it seems generally assumed in Wall Street that the new common stock would enjoy some investment demand (particularly in its own state). It might, therefore, sell on about a 6 per cent yield basis, under present market conditions. This would mean a price range of about 21-25 depending on whether or not the company retains the rate increase. (It is estimated that without the rate increase the dividend might have to be limited to $1.25.)

STANDARD GAS & ELECTRIC, in its letter to stockholders accompanying the plan, stated "it is expected that the initial dividends on the reclassified common stock of Duquesne will be at the rate of $1.50 per share per year." However, later reference is made to possible "uncertainties" as to Duquesne's rate increase and other factors, which may make it necessary to amend the plan and substitute cash for Duquesne shares in the proposed exchanges.

Using the estimated market values mentioned above, the package of stocks to be given to the $7 prior preference stock would be worth about $172-$180 and on the $6 $152-$159. These figures compare with the claims for par and arrears of $203 and $188, respectively. If it be assumed that the SEC in estimating the fair value of these stocks should apply the discount theory to the dividend arrears (but not to the par value) this would mean that based on the above estimates the $7 issue would receive only about 70-78 per cent of its arrears claim, while the $6 would get only 59-67 per cent.

These figures appear to be on the low side, although of course a higher estimated value for Duquesne would increase the percentages somewhat.

It is of course very difficult to attempt any appraisal of break-up values for the $4 second preferred and common stocks, since the plan does not propose any allocation of the remaining assets. Truslow Hyde of Josephthal & Company has estimated potential values at $88-$112 for the $4 preferred, and $8.80-$15 for the common.

AMERICAN POWER & LIGHT COMPANY filed a letter with the SEC on February 15th announcing that it plans to divest its entire interest in Washington Water Power (its major remaining asset) by sale to public utility districts and municipalities. The company claims that the SEC has no jurisdiction, and it hoped to consummate the sale as soon as practicable after February 26th. However, the SEC had scheduled hearings on February 20th and 26th. After the sale, or in connection therewith, Washington Water Power would redeem its publicly held bonds and preferred stock at their call prices, and $2,700,000 cash would be placed in its employee retirement fund.

American Power & Light expects to receive net proceeds of $56-$61,000,000 for the common equity in Washington, or about $24-$26 per share of American. Following consummation of the sale, American would file with the SEC a plan to distribute the proceeds, which might be partly in the form of Treasury and municipal bonds. American has other net cash assets of about $3 a share, so that the estimated break-up value of all assets might approximate $27-$29. However, there has been local opposition to the sale and a law has been enacted in Idaho which might prevent sale of Washington's property in that state to a PUD. American's announcement does not reveal how these controversies will be settled, or whether they will retard the sale.

CURRENT "YIELD YARDSTICKS"

		1950-1 Range		1949 Range	
	Recent	*High*	*Low*	*High*	*Low*
U. S. Long-term Bonds—Taxable	2.41%	2.42%	2.15%	2.40%	2.14%
Utility Bonds—Aaa	2.68	2.69	2.55	2.77	2.56
—Aa	2.74	2.74	2.63	2.84	2.64
—A	2.85	2.87	2.75	3.02	2.77
—Baa	3.21	3.22	3.14	3.45	3.15
Utility Preferred Stocks—High-grade	3.77	3.82	3.70	4.02	3.80
—Medium-grade	4.20	4.25	4.13	4.57	4.19
Utility Common Stocks	5.88	6.43	5.31	6.26	5.58

Latest available Moody indexes are used for utility bonds and preferred stocks; Standard & Poor's indexes for municipal bonds and utility common stocks.

There is also apparently a conflict of opinion between Electric Bond and Share (which holds about 8 per cent of American Power & Light stock) and American over the proposed sale of Washington Water Power. President Aller of American has filed a 6-page letter with the SEC, charging that Bond and Share is trying to exercise control over the sale. He also referred to the fact that Bond and Share had committed itself to sell its holdings in American by February 15, 1950, unless the commission should extend such time. He said that "no valid reason is advanced by Bond and Share why it should not proceed to sell its capital stock of American at these prices."

He also cited the fact that Bond and Share had declined a proxy solicitation for its shares at the October, 1950, meeting of American. "It is American's opinion," he continued, "that Bond and Share's reluctance at that time was substantially, although it may not have been entirely, due to the fact that some of American's stockholders were at that time endeavoring to assemble proxies representing a large block of stockholders, intending to vote such proxies at the election of directors with the intention of obtaining representation on or control of American's board so as to compel American to distribute the stock of the Washington Company to stockholders of American, and thus obviate any possibility of a sale to public bodies in the Northwest."

The Outlook for Electric Utilities

Several well-known utility analysts have recently written about the outlook for electric utility earnings. Charles Tatham, Jr., in the *Analysts Journal* for the first quarter of 1951, forecasts earnings for all electric utilities through 1953. During 1939-1943, when preparations for World War II were being "geared up," the FRB index gained 119 per cent, resulting in the following increases in electric utility revenues: residential 20 per cent, commercial 2, industrial 73, and miscellaneous 36 (total 31 per cent). In 1949, however, industrial activity was already at a very high level, so that the huge percentage increase in kilowatt-hour sales to industry can hardly be duplicated in 1949-1953. However, Mr. Tatham assumes that the increase in such sales will be substantially greater in relation to the increase in industrial production than during World War II. He forecasts the following rates of increase for different classes of revenues during the period 1949-1953, as compared with an anticipated 28 per cent increase in the FRB index of business activity: residential 35 per cent, commercial 22, industrial 37, and miscellaneous 24 (total 31 per cent).

He also assumes that during 1950-1953 the utilities will not have the same difficulties with fuel costs as developed during and after the war period. (The proportion of fuel cost to revenues rose from 8 per cent in 1940 to 18 per cent in late 1948.) Relief due to greater use of fuel clauses, improvements in generating efficiency, and "assumed more effective price regulation" should result in stabilizing fuel cost at around 16 per cent of revenues, he believes.

He also assumes that the ratio of labor and miscellaneous costs to revenues may decline somewhat—as it did during 1940-1943. The number of employees would continue to decrease, he thinks, more than offsetting the effects of wage increases, overtime, etc. Accordingly, he expects an increase in operating profits (before income taxes) from 38.6 per cent of revenues in 1950 to 42.6 in 1953. The Federal income tax rate is unlikely to go above 50 per cent, in his opinion (effective in 1952-53). The table on page 369 shows the results of his forecasts in condensed form. While his projections of earnings and costs may seem to be somewhat on the optimistic side, Mr. Tatham believes that, if necessary, the utilities will have no trouble in securing adequate rate increases to support earning power.

Ernest R. Abrams, writing in *Barron's* for January 22nd, thinks that

the electric utilities will not fare badly with EPT costs, and that 1951 earnings should at least equal those of 1950 "if Congress doesn't bear down too hard on utilities in the new tax program." By 1953 he estimates that generating capacity will have increased by 30 per cent, which would permit the industry to build up a 20 per cent reserve margin unless defense production requirements prove larger than expected. The utilities had expected to spend about $2.5 billion for construction this year, or about one-third more than last year, but shortages in aluminum and copper may reduce this estimate substantially.

With regard to current and future gains in residential consumption of electricity, Mr. Abrams points out:

> A factor often overlooked in its impact on electric utility profits is the large-scale migration that has taken place in the U. S. population pattern in the past decade. After a record gain of 19,000,000 in that period, the centers of metropolitan areas are approaching their saturation points. As a result, suburban areas are growing rapidly. Suburban areas are primarily residential sections and—as every residential consumer of electricity realizes—he pays a higher price for his current than a factory does. While it costs more to serve him than a large industrial plant, the proportionate profit is greater. That is why Long Island Lighting, for example, has outstripped Consolidated Edison in its rise in earnings, although their service areas touch.

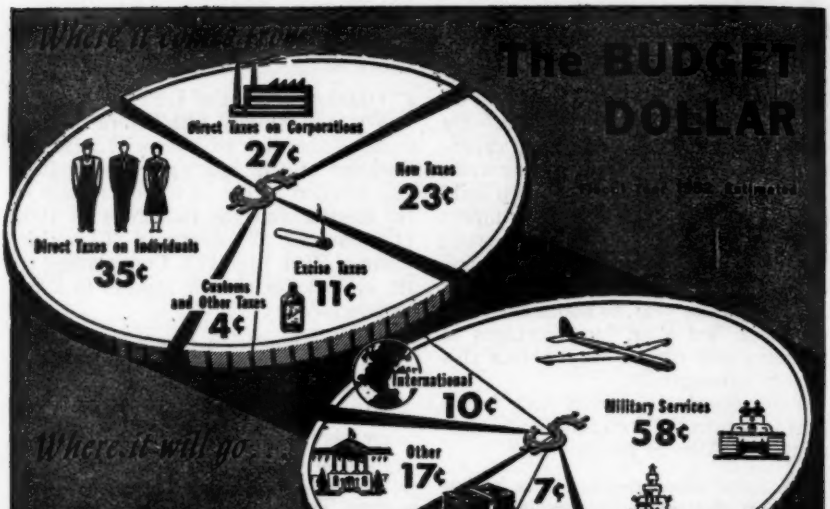
CHARLES O'NEIL of Duff & Phelps, in a talk January 17th before the National Federation of Financial Analysts Societies at Chicago, gave an excellent and detailed review of the operations of the electric and gas industries in 1950 (*Commercial & Financial Chronicle,* January 25th, page 11). Commenting on the outlook for electric utilities in 1951, he concluded:

> The stimulation of general activity rising out of the present semiwar status must produce substantial increases in kilowatt-hour sales. Because that increase will be primarily in low rate industrial classes, the prospect is for somewhat smaller gains in electric revenue. The factors which created virtual stability in operating ratio, exclusive of taxes on income in 1950, should continue in the same general direction in 1951. Under the present tax law some of that gain would go to the tax collector, but still there should be a larger amount available for interest and dividends. . . .
>
> Forecasted electric utility construction and financing in 1951 runs somewhat higher. . . . Undoubtedly the industry would like to follow the same general financing pattern which has prevailed since the war, which would call for perhaps $850,000,000 debt and $650,000,000 combined preferred and

ELECTRIC UTILITY EARNINGS

(Millions)

	Actual	*Projected*			
	1949	*1950*	*1951*	*1952*	*1953*
Operating revenue	$4,382	$4,760	$5,160	$5,460	$5,720
Net after expenses	1,623	1,840	2,040	2,250	2,440
Charges	264	285	300	315	330
Federal taxes	348	469	590	715	790
Other operating income	131	120	113	110	120
Preferred dividends	103	112	116	121	125
Balance for common	654	656	663	703	785
Common dividends	449	510	540	570	600
Ratios					
Return on capitalization	5.9%	5.6%	5.4%	5.4%	5.6%
Return on common stock equity	10.2	9.5	9.1	9.1	9.7
Common stock dividend pay-out	68.5	77.7	81.5	81.0	76.5



How the Budget Bureau would spend your tax dollar in fiscal 1952, and resulting tax picture.

common. It is clear that the latter, and particularly the common stock portion, will depend upon the state of the market. Fortunately capital structures have been so improved in recent years that the industry has a considerable degree of flexibility as between debt and equity, while still maintaining over-all structures within safe limits.

Amortization of Emergency Facilities

EBASCO SERVICES INCORPORATED has just issued a 50-page brochure on the requirements, certification, and effects on electric and gas utilities of the amortization of emergency facilities. The report includes as Appendix C a report by a special EEI committee headed by Harold H. Scaff, vice president of Ebasco.

The subject is highly technical and does not lend itself easily to summarization. Briefly, § 124A, which was added to the Internal Revenue Code by § 216 of the Revenue Act of 1950, permits a taxpayer if he wishes to take a tax deduction for amortization of any "emergency facility" over a 5-year period, instead of the usual depreciation deductions spread over a much longer period of years. A certificate must be obtained from the National Security Resources Board at Washington that the property constructed or acquired "is necessary in whole or in part in the interest of national defense during the emergency period."

The study devotes considerable attention to the effects of special amortization on utility financing.

Gas Utility Financing

THE American Gas Association has issued a summary of the industry's 1950 financing, which reached a record volume of $1.7 billion, some 17 per cent larger than in 1949. The industry improved its equity position moderately in 1950, with debt financing comprising

about 70 per cent of the total, compared with 73 per cent in 1949 and an average of 82 per cent for the 5-year period 1945-49. Moreover, some 37,000,000 convertible preferred stocks and $7,000,000 convertible debentures were issued. Debentures and long-term notes were more popular in 1950, their proportion to all securities increasing to 25 per cent, compared with 12 per cent in the previous year.

The "straight" gas operating companies (which includes the pipeline companies) accounted for 52 per cent of all gas financing in 1950, compared with 35 per cent in 1949. The manufactured gas branch of the industry showed a declining trend, the amount of financing declining from $379,000,000 in 1949 to $132,000,000 in 1950; the decline, however, reflects the transition of some companies to mixed or natural gas, rather than failure to participate in the industry's expansion program.

FINANCIAL DATA ON DIVIDEND-PAYING ELECTRIC UTILITY STOCKS

	Revenues $50,000,000 or over	2/23/51 Price About	Indicated Dividend Rate	Share Earnings* Approx. Yield	Share Earnings* Cur. Period	Share Earnings* % Increase	Price-Earn. Ratio	Dividend Pay-out
S	American Gas & Elec.	55	$3.00	5.5%	$4.86d	13%	13.2	62%
B	Boston Edison	42	2.80	6.7	3.13d	8	13.4	89
S	Central & South West	15	.90	6.0	1.46s	10	10.3	62
S	Cincinnati G. & E.	35	1.80	5.1	2.96d	8	11.8	61
S	Cleveland Elec. Illum.	46	2.40	5.2	3.40d	11	13.5	71
S	Commonwealth Edison	28	1.60	5.7	2.12d	—	13.2	75
S	Consol. Edison of N. Y.	31	2.00	6.5	2.44d	9	12.7	82
S	Consol. Gas of Balt.	26	1.40	5.4	1.85d	22	14.1	76
S	Consumers Power	33	2.00	6.1	2.88j	34	11.5	69
S	Detroit Edison	23	1.20	5.2	2.12j	23	10.8	57
C	Duke Power	92	4.75	5.2	7.87s	D4	11.7	60
S	General Pub. Util.	18	1.20	6.7	2.19d	10	8.2	55
S	Middle South Util.	19	1.20	6.3	1.88n	—	10.1	64
S	New England Elec. System.	12	.80	6.7	1.42d	9	8.5	56
S	Niagara Mohawk Power	22	1.40	6.4	1.96d	1	11.2	71
S	North American	19	1.20	6.3	1.45s	3	13.1	83
S	Northern States Power	10	.70	7.0	.93d	D10	10.8	75
S	Ohio Edison	32	2.00	6.3	2.99j	12	10.7	67
S	Pacific G. & E.	34	2.00	5.9	†2.51d	47	13.5	80
S	Penn Power & Light	27	1.60	5.9	2.50d	24	10.8	64
S	Philadelphia Elec.	28	1.50	5.4	2.22o	29	12.6	68
S	Pub. Serv. E. & G.	23	1.60	7.0	2.06d	D8	11.2	78
S	So. Calif. Edison	35	2.00	5.7	3.16d	3	11.1	63
S	Southern Co.	11	.80	7.3	1.10d	D2	10.0	73
S	Texas Utilities	27	1.28	4.7	2.40d	20	11.3	53
S	Virginia Elec. & Power	22	1.20	5.5	1.86d	30	11.8	65
S	West Penn Elec.	29	2.00	6.9	3.42n	6	8.5	58
S	Wisconsin Elec. Power	20	1.20	6.0	1.86s	9	10.8	65
	Averages			6.0%			11.4	
	Revenues $25-$50,000,000							
S	Carolina P. & L.	33	$2.00	6.1%	$3.36j	15%	9.8	60%
O	Central Ill. P. S.	17	1.20	7.1	1.53o	—	11.1	78
O	Connecticut L. & P.	15	.90	6.0	.99n	6	15.2	91
S	Columbus & S. Ohio Elec.	21	1.40	6.7	2.30d	D11	9.1	61
S	Dayton P. & L.	32	2.00	6.3	2.79s	19	11.5	72
S	Florida P. & L.	23	1.40	6.1	2.43d	12	9.5	58
S	Gulf States Util.	22	1.20	5.5	1.85d	7	11.9	65
S	Houston L. & P.	60	2.70	4.5	4.05d	2	14.8	67
S	Indianapolis P. & L.	29	1.80	6.2	3.32s	5	8.7	54
S	Illinois Power	36	2.20	6.1	2.67n	D5	13.5	82
S	Kansas City P. & L.	25	1.60	6.4	2.09d	5	12.0	77
S	Kansas Pr. & Lt.	17	1.12	6.6	1.67d	13	10.2	67

(Continued)		2/23/51 Price About	Indicated Dividend Rate	Approx. Yield	Share Earnings* Cur. Period	% Increase	Price-Earn. Ratio	Dividend Pay-out
S	Long Island Lighting	14	1.00Est.	7.1	1.25o	11	11.2	80
S	Louisville G. & E.	31	1.80	5.8	3.01d	D2	10.3	60
O	New England G. & E.	15	1.00	6.7	1.46d	14	10.3	68
O	New Orleans Pub. Ser.	39	2.25	5.8	2.79n	—	14.0	81
S	N. Y. State E. & G.	28	1.70	6.1	2.27j	12	12.3	75
O	Northern Ind. P. S.	23	1.40	6.1	2.13n	16	10.8	66
S	Oklahoma G. & E.	21	1.30	6.2	1.77d	9	11.9	73
S	Potomac Elec. Power	14	.90	6.4	.85s	D14	16.5	106
S	Pub. Serv. of Colo.	30	1.40	4.7	2.41d	13	12.4	58
S	Pub. Serv. of Ind.	29	1.80	6.2	2.54d	2	11.4	71
O	Puget Sound P. & L.	18	.80	4.4	1.84d	10	9.8	43
S	Rochester G. & E.	33	2.24	6.8	2.84d	8	11.6	79
S	Toledo Edison	10	.70	7.0	.92d	8	10.9	76
O	West Penn Power	35	2.00	5.7	2.13s	D12	16.4	85
	Averages			6.1%			11.9	
Revenues $10-$25,000,000								
S	Atlantic City Elec.	21	$1.20	5.7%	$1.66j	6%	12.7	73%
C	California Elec. Pr.	8	.60	7.5	.67d	D12	11.9	90
O	Calif. Oregon Power	24	1.60	6.7	2.29j	14	10.5	70
O	Central Ariz. L. & P.	13	.80	6.2	1.14n	3	11.4	70
S	Central Hudson G. & E. ...	9½	.60	6.3	.71d	16	13.4	85
O	Central Ill. E. & G.	23	1.30	5.7	2.74s	25	8.4	47
S	Central Ill. Light	34	2.20	6.5	3.03j	2	11.2	73
O	Central Maine Power	17	1.20	7.1	1.60j	5	10.6	75
O	Connecticut Power	37	2.25	6.1	2.52d	9	14.7	89
S	Delaware P. & L.	23	1.20	5.2	1.95d	17	11.8	62
S	Florida Power Corp.	18	1.20	6.7	1.61d	3	11.2	75
C	Hartford Elec. Light	48	2.75	5.7	2.96d	3	16.2	93
S	Idaho Power	36	1.80	5.0	2.79d	3	12.9	65
O	Interstate Power	8	.60	7.5	.86s	1	9.3	70
O	Iowa Electric L. & P.	13	.90	6.9	1.25n	D13	10.4	72
O	Iowa Pub. Serv.	21	1.20	5.7	2.05d	D9	10.2	59
S	Iowa-Illinois G. & E.	27	1.80	6.7	2.58o	—	10.5	70
S	Iowa Power & Light	22	1.40	6.4	1.85s	4	11.9	76
O	Kansas Gas & Elec.	33	2.00	6.1	3.14n	11	10.5	64
O	Kentucky Utilities	15	1.00	6.7	1.53s	3	9.8	65
S	Minnesota P. & L.	32	2.20	6.9	3.22j	D2	9.9	68
S	Montana Power	23	1.40	6.1	2.78d	12	8.3	50
C	Mountain States Power ...	12	.90Est.	7.5	1.34n	11	9.0	67
O	Otter Tail Power	20	1.50	7.5	2.02d	33	9.9	74
O	Pacific P. & L.	14	1.10	7.9	1.61d	59	8.7	68
O	Portland Gen. Elec.	27	1.80	6.7	2.75n	42	9.8	65
O	Pub. Ser. of N. H.	24	1.80	7.5	1.87d	D8	12.8	96
O	San Diego G. & E.	14	.80	5.7	1.19d	34	11.8	67
S	Scranton Elec.	15	1.00	6.7	1.21d	7	12.4	83
S	So. Carolina E. & G.	9	.60	6.7	.68n	D46	13.2	88
S	Southern Indiana G. & E. .	22	1.50	6.8	2.13j	D1	10.3	70
O	Southwestern Pub. Ser.	15	1.12	7.5	1.26d	1	11.9	89
C	Tampa Electric	39	2.40	6.2	3.43d	14	11.4	70
O	United Illum.	43	2.40	5.6	2.69d	6	16.0	84
S	Utah Power & Light	28	1.80	6.4	2.75n	20	10.2	65
O	Western Mass. Cos.	33	2.00	6.1	2.70d	2	12.2	74
O	Wisconsin P. & L.	17	1.12	6.6	1.50d	8	11.3	75
	Averages			6.5%			11.3	
Revenues $5-$10,000,000								
O	Arkansas Missouri Power .	14	$1.00	7.1%	$2.07s	16%	6.8	48%
O	Central Vermont P. S.	10	.76	7.6	.93d	14	10.8	82
C	Community Pub. Ser.	13	.90	6.9	1.30s	D4	10.0	69
O	El Paso Electric	35	2.00	5.7	3.48d	4	10.1	57
S	Empire Dist. Elec.	18	1.24	6.9	2.22s	31	8.1	56
O	Gulf Public Service	14	.80	5.7	1.32o	D3	10.6	61

(Continued)		2/23/51 Price About	Indicated Dividend Rate	Share Earnings* Approx. Yield	Cur. Period	% Increase	Price-Earn. Ratio	Dividend Pay-out
O	Iowa Southern Util.	17	1.20	7.1	1.92n	D6	8.9	63
O	Lawrence G. & E.	36	2.85	7.9	2.92d*	21	12.3	98
O	Lynn G. & E.	31	2.00	6.5	1.94d*	D3	16.0	103
O	Madison Gas & Elec.	30	1.60	5.3	1.89d*	15	15.9	85
O	Northwestern P. S.	10	.80	8.0	1.30s	21	9.7	62
C	Penn Water & Power	40	2.00	5.0	2.23d*	5	17.9	90
O	Pub. Ser. of New Mexico	16	1.00	6.3	1.53s	D2	10.5	65
O	Rockland L. & P.	10	.60	6.0	.71d	15	14.1	92
S	St. Joseph Lt. & Pr.	22	1.50	6.8	1.93s	—	11.4	78
O	Tide Water Power	8	.60	7.5	1.11j	7	7.2	54
O	Tucson Gas, E. L. & P.	23	1.40	6.1	2.16s	D8	10.6	62
O	Western Lt. & Tel.	24	2.00	8.3	1.94d	D13	12.4	103
	Averages			6.7%			11.3	
	Revenues under $5,000,000							
O	Arizona Edison	19	$1.20	6.3%	$1.88s	D20%	10.1	64%
O	Bangor Hydro-Elec.	28	1.60	5.7	2.65d	6	10.6	60
O	Beverly G. & E.	45	2.75	6.1	3.16d	50	14.2	87
O	Black Hills P. & L.	19	1.28	6.7	2.07o	27	9.2	62
O	Calif. Pacific Util.	35	2.40	6.9	4.59d	33	7.6	52
O	Central Louisiana Elec.	29	1.80	6.2	3.16d	D12	9.2	57
O	Citizens Utilities	16	.80&Stk	5.0	1.95s	11	8.2	41
O	Colorado Central Power	16	1.00	6.3	1.34je	26	11.9	75
O	Concord Electric	36	2.40	6.7	2.57d*	18	14.0	93
O	Derby G. & E.	22	1.40	6.4	1.92d*	61	11.5	73
O	Eastern Kansas Utils.	12	.60	5.0	1.00ju	—	12.0	60
O	Fitchburg G. & E.	49	3.00	6.1	3.68d*	32	13.3	82
O	Frontier Power	4½	.40	8.9	.84d*	D26	5.4	48
O	Haverhill Elec.	36	3.00	8.3	2.80d*	155	12.9	107
O	Lake Superior Dist. Pr.	24	1.80	7.5	3.11d	21	7.7	58
O	Lowell Elec. Lt.	47	3.55	7.6	3.35d*	42	14.0	101
C	Maine Public Service	13	1.00	7.7	1.68n	17	7.7	60
O	Michigan Gas & Elec.	23	1.60	7.0	2.13s	—	10.8	75
O	Missouri Edison	9	.70	7.8	1.46s	60	6.2	48
C	Missouri Public Ser.	39	2.60	6.7	5.12d*	16	7.6	51
O	Missouri Utilities	15	1.00	6.7	1.44d	D24	10.4	69
O	Newport Electric	27	1.80	6.7	2.81n	D7	9.6	64
O	Sierra Pacific Power	24	1.60	6.7	1.94d	5	12.4	82
O	Southern Colo. Pr.	9	.70	7.8	.86ag	D9	10.5	81
O	Southwestern El. Ser.	12	.80	6.7	1.38my	1	8.7	58
O	Upper Peninsula Power	14	1.20	8.6	1.51s	12	9.3	79
	Averages			6.9%			10.2	
	Averages, five groups			6.4%			11.2	
	Canadian Companies*							
C	Brazilian Trac. L. & P.	25	$2.00	8.0%	$3.85d*	4%	6.5	52%
C	Gatineau Power	20	1.20	6.0	1.43d*	13	14.0	84
C	Quebec Power	20	1.00	5.0	1.33d	9	15.0	75
C	Shawinigan Power	33	1.45	4.4	1.98d	39	16.7	73
C	Winnipeg Electric	44	2.00	4.5	2.53d*	40	17.4	59

my—May, 1950. je—June, 1950. ju—July, 1950. ag—August, 1950. s—September, 1950. o—October, 1950. n—November, 1950. d—December, 1950. j—January, 1951. d*—December, 1949. B—Boston Exchange. C—Curb Exchange. O—Over-counter or out-of-town exchange. S—New York Stock Exchange. Est.—Estimated. *All twelve months' earnings comparisons have been adjusted to reflect in both periods the present number of shares outstanding. If additional common shares have been recently offered, earnings are adjusted to give effect to the offering. **While these stocks are listed on the Curb, Canadian prices are used. (Curb prices are affected by exchange rates, etc.) †Does not fully reflect $7,000,000 gas rate increase effective February 18, 1951, or electric rate increase of $8,800,000 granted March 22, 1950. Earnings on *average* shares outstanding, $2.62; price-earnings ratio on this basis 13 and dividend pay-out 76 per cent.

What Others Think

The Riddle of the Reclamation Fund

HAVE you ever been confused by the terms: "Basin Account," "Interest Component," "Reclamation Fund"? D. J. Guy, manager, natural resources department, Chamber of Commerce of the United States, examines the complexities of the Reclamation Bureau finances in the January issue of *Natural Resources Notes* (U. S. Chamber of Commerce) in an article entitled "Reclamation's Piggy Bank."

Guy outlined the origins of the Reclamation Fund, its purpose, and the congressional intent behind it. He then traces the fund down through the years, pointing out some of the purposes that it is now serving.

He began by observing that among the many natural resources subjects that engaged the attention of the President's Water Resources Policy Commission, the most active and controversial next to power, perhaps, is reclamation. Recently accelerated activity is not measured alone by great increases in Federal appropriations of taxpayers' money. Many basic changes are in process of effectuation—some by law, some in appropriation acts, and some through administrative interpretation. He stated:

> Reclamation, originally, was never intended to be a subsidized business. Repayment of the cost of building dams, canals, laterals, and the like, was a written contractual obligation. Capital was to be raised, not through appropriation by Congress of funds collected from the whole tax-paying public, but by using government receipts from the sale of public lands, collection of oil royalties, and similar odd-lot capital sources. A definite and fundamental principle embodied in the Reclamation Act of 1902 was that moneys shall not be raised by taxation.

GUY noted that not all reclamation is by gravity. Where there is power at the dams, irrigable lands can be reached by pumping water to higher levels. When there is surplus power for sale, another source of capital for reclamation is available that doesn't come from general taxation. In 1906, Congress passed a law providing that these surplus power revenues be placed to the credit of the project from which such power is derived, provided that, in so doing, the efficiency of the reclamation projects is not impaired.

The natural resources expert then points out that since the money for building reclamation projects was not to be raised by taxation, but from income from public lands, the Congress provided that they should constitute a trust fund to be set aside for use in the construction of irrigation works, the cost of each project to be assessed against the land irrigated, and, as fast as the money was paid back by the irrigator, it went into the trust fund to be used over again in building new works. This revolving fund is generally known as the "Reclamation Fund." He added:

> Up until the "depression" days and "emergency relief," Reclamation had jogged along, financially, as it had started, except for a "nonreimbursable" appropriation of $1,000,000 in 1907 and an advance of a bond loan of $20,000,000 to the Reclamation Fund by the U. S. Treasury. By fiscal 1930, $10,000,000 of the loan had been paid back to miscellaneous receipts of the Treasury. A new loan of $5,000,000 was added in 1931. In 1939, the whole remaining $15,000,000 was wiped out.

ACCORDING to Guy, this, in essence, is the original concept of reclamation finance and its history up to the depression days. Substantial emergency relief money went to reclamation. Then came the age of multipurpose development, involving not only reclamation, but navigation, flood control, recreation, fish and wildlife, and hydro power far beyond any conceivable notion of their being essential to a reclamation pumping program. He stated further:

> The Interior Department has been quick to seize upon the revolving fund and the Reclamation Law as a legal ground for siphoning the rapidly growing power revenues into the Reclamation Fund. Through the department's interpretation of the Reclamation Act of 1939, and a now famous solicitor's opinion, coupled with a phantom "interest component" and finally the advocacy of a fictitious "basin account," the department is about to stretch the Reclamation Law around the whole scheme of multipurpose development absorbing navigation, flood control, power, and all the other benefits, real and imaginary.

The Chamber of Commerce official notes that by 1946 the Reclamation Bureau was boasting that Federal reclamation was a billion-dollar business. Moneys had been raised by the following methods:

Through accretions to the Reclamation Fund	$233,000,000
Through repayments and power revenue	195,000,000
Emergency Relief (NIRA)	192,000,000
Appropriations and special funds	373,000,000
Total	$993,000,000

Guy then went on to show recent growth in the fund:

> Since 1946, another billion has been added, roughly three-fourths through appropriations of general funds and one-fourth through accretions to the "fund." Granting that the emergency relief money is nonreimbursable and that the revolving "Reclamation Fund" moneys are not raised by general taxation, there remains in excess of a billion dollars of direct "Federal aid" to reclamation. When these appropriations are "paid back," either by the irrigators, or in power revenues, or "interest components," or in "return of the power investment," they go to the "Reclamation Fund," or special project funds to be plowed back into more reclamation and power development.

He continued:

> The device is simple. Let's say an irrigator can repay a capital cost of $100 per acre to get water on his land. The actual capital cost is $500 per acre. But there is a power development on the project that nets 3 per cent on the power investment. This 3 per cent return is not paid into the general fund of the Treasury. It goes into the Reclamation Fund to liquidate the $400 per acre capital cost that the irrigator can't pay. So the power dollar is counted twice; first, to "return" the power investment with interest and, next, to "repay" 80 per cent of the reclamation investment. In either case, it lands in the "fund" to begin the same dual function all over again.

GUY then discussed the "Basin Account." He noted that the President's Water Resources Policy Commission sees four objections to separate basin accounts—accounts into which all revenues from all projects within a basin would flow and remain earmarked for a reappropriation within the basin. First, they are discriminatory as between basins.

Second, power rates might be kept too high. Third, unsound irrigation expansion might be encouraged. Fourth, it fears political pressure from land speculators and business interests. He pointed out:

> But the commission's cure is worse than the disease. It suggests the possibility of "national resources

"ONE OF THESE DAYS THE SQUIRRELS ARE GOING TO GET MY PARTNER!"

accounts" so that the power-rich Columbia basin can help the power-poor Rio Grande basin and do for the nation what the multipurpose program accounts would do for a particular basin.

He concluded by stating that the Reclamation Fund—"Reclamation's little piggy bank of fifty years ago"—is now a great National Bank Account, with funds all earmarked for reappropriation to more and more reclamation, public power, navigation, flood control, fish and wildlife—and "basin Utopias," if Congress keeps priming the pump with appropriations. He cautioned that such congressional action is far from the fundamental principle of the Reclamation Act of 1902 that "moneys used by the Reclamation Service for reclaiming arid and semiarid land by irrigation shall not be raised by taxation."

—D. T. B.

British Socialism Too Far Right?

THE British experiment with Socialism has been assailed from many sides. Most observers agree that many things are going wrong and that, because of them, the Socialist idea in Britain has proved itself unworkable.

Professor Rexford Guy Tugwell of the University of Chicago, a Socialist sympathizer and former member of President Roosevelt's "brain trust," has recently returned from England. He, too, admits the many failings of the Labor party's attempt to socialize the economy, but he chalks it up to the Labor party's conservative approach to the problem. He predicts an early defeat of the Labor party.

Tugwell's observations are contained in the current issue of *Common Cause,* a one-world magazine published at the University of Chicago. While in England he wrote a series of "Letters from Latter-day Britain" for the magazine. Tugwell served as an exchange professor at the London School of Economics, founded by Sidney Webb, early organizer of the Fabian socialist movement and patron saint of the British Labor party.

In his letters Tugwell blames the plight of the Labor party on the fact that it has not gone far enough and fast enough in Socialism and that it has "tried to appear conservative." He also declares that Britain "has a lesson of overwhelming strategic importance to teach America: that Socialism is the answer to Communism." He reports:

> I have met almost no Laborites who think their prospects are good, and there is no doubt that the Tories are on the prod. The depression of the one organization and the high spirits of the other is too noticeable to miss.
>
> Partly that is the result of believing too much in statistics and trends; the curve of declining Labor support is at the point now at which the Tories should win handily and they and everyone else expect that they will. And after reading this pamphlet (a new statement of "Labor policy" which he quoted) it seems that the election has been conceded by retreat and apology.

TUGWELL believes that, instead of advancing, the party politicians have gone back. They think, obviously, that the February election was a rebuke for being too radical. The educator is firmly convinced that they are wrong about this and that only the kind of campaign President Truman carried on in 1948 "—that is, a defiant and radical one —could bring them through."

In discussing Socialism as the "answer" to Communism, Tugwell writes:

> There is no Communist problem in Britain. The few party members remaining are seldom heard from; they have lost their single seat in Parliament; and they have no claim on public attention. This was not so in 1945. There was then active Communist and Fascist movements about which a good deal of apprehension was felt.

Tugwell notes that among Labor party troubles is the fact that the Trade Union Council, through which the Socialists climbed to power, is demanding wage increases and guaranty of the right to strike even against government in nationalized industries. He states:

> This shows conclusively that the Trade Unionists are not Socialists but only trade unionists. If they were Socialists, they would know that the benefits of nationalization mostly arrive when the whole industry has been taken over, and cannot be expected until that time.

The Labor party, he declares, is attempting to placate the workers through holding out to them the benefits of "the welfare state." The workers privately are reminded "that most of what employers earn is taken away from them to pay for public services. If that is so, the incentive for private enterprise has obviously been removed, employers not being in the least fooled by high earnings

"AND THE BEAUTY OF IT IS, IF A LINEMAN DISCOVERS IT HE'LL BE AFRAID TO SAY ANYTHING FOR FEAR THEY'LL THINK HE'S NUTS!"

they cannot keep. Industries, then, might as well be nationalized for all the benefit the nation gets from not nationalizing them."

TUGWELL writes that he does not expect the Labor party to lose "by much," and that one of its greatest liabilities "is the Tory pirating of its policies," indicating that Conservatives in England could not be counted on to present a clean-cut, antisocialist issue to the voters.

Tugwell looks for the solution to human survival in "Communism" of the non-Soviet kind. He says: "Integration is to be reached by a democracy, not a tyranny (things done by people, not to people). It will therefore be solidly founded in practicing consent. This integration is reached in a state which might, if it were not for the Russian identification, and the deep-seated European and American fear of the Russian colossus, be recognized as Communism."

Gas Goes to Work in Venezuela

OIL-RICH Venezuela is about to put its natural gas to work. An influx of industry has created a market for the fuel which hitherto has been "flared off" in the oil fields for lack of demand. *The Journal of Commerce,* New York, has recently published a report of the activities in the pipeline expansion program of the South American country.

According to the *Journal* article, the first step in Venezuela's comprehensive program to provide natural gas for her rapidly expanding industry is expected to be completed and in operation by midyear. Investments in the venture are estimated to exceed $10,000,000.

With industry moving ahead by veritable leaps and bounds, natural gas is seen as "essential" and development of the natural gas resources is regarded of considerable importance. Its use is certain to create many new industries and jobs throughout the country.

Among the industries which might expand facilities or be created are the following: factories making glass, cement, ceramic brick, refactory brick, aluminum, processed foods, textiles, paper, cardboard boxes, paints, pigments, chemicals, ammonia fertilizer, and lumber mills.

In a government survey, made in cooperation with E. Holley Poe Associates, findings show that natural gas reserves will adequately meet industry's needs for at least the next thirty years. Now under way is a nation-wide pipe system to harness this previously wasted energy.

At the present, only Maracaibo is served by a gas transmission system. In operation for ten years, it does not compare, however, with what the United States considers standard. No attempt is made to control pressure or to measure consumption. A flat charge is made for all subscribers.

NEW pipelines now to be built will run overland in north-central Venezuela. Proposed is a main line originating in central Venezuela's Guarico state. This will run northwest 105 miles to Caracas and on to the port cities of La Guaira and Arrecife. A connecting line is to run westward to feed the cities of Maracay and Valencia along a 90-mile route.

These latter areas, Maracay and Valencia, should show a greater industrial development with the laying of these pipelines, as well as the western port of Puerto Cabello where mineral and agricultural resources are close at hand. Although the presently proposed gas transmission system does not include Puerto Cabello, it could be easily extended from either of the other two cities, the report states.

Also a promising area is that around Puerto la Cruz, where near-by gas reserves can be easily transmitted to there. With two oil refineries now operating at the port, easily accessible limestone, clays, sands, etc., and the exceptional seaport possibilities, Puerto la Cruz is definitely being considered as an industrial center.

MEANWHILE, near Ciudad Bolivar, on the Orinoco river, southeast of Caracas, another industrial center will develop shortly. Now that the Orinoco is being dredged as a commercial waterway and the discovery of iron-ore deposits to the south, this area is expected to expand considerably. Gas transmission lines can easily be extended to these areas, it is reported.

Careful government planning groups will provide that most industrial, commercial, and agricultural consumers of natural gas can be served by the proposed pipeline routes.

However, because pipe shortages make it impossible for United States' mills to supply the materials, European sources will supply the entire pipe necessary. This includes 70 miles of 16-inch pipe, 35 miles of 12¾-inch, and 90 miles of 10¾-inch pipe.

They expect to complete the project by midyear when the system will be in

partial operation. No compressor stations to boost gas pressure are contemplated until more consumers are added. Gas pressure at the source is fed into the lines at 800 pounds per square inch, which, officials say, is sufficient to maintain constant pressure levels along the line.

Transmission costs are set near $8,000,000 while compression system costs may run between two and three million dollars more. The latter cost is to be borne by the supplier, however (Venezuelan Atlantic Refining Company). Private capital will finance both systems, it is said.

Of the estimated $8,000,000 cost for the transmission system, equity stock for $1,500,000 will be issued. Some of this will probably be made available for private investors in the United States.

First mortgage pipeline bonds will be secured for $5,500,000. A special company to serve only industrial users, the Venezuelan Atlantic Transmission Corporation, leaves natural gas retailing to domestic and commercial consumers to another company set up for this specific purpose.

Recently incorporated in Venezuela as Vendegas (C. A. Venezolana Distribuidora de Gas), consultations are now under way with U. S. utility companies concerning details of the new operation.

The Telephone and Seventy-five Years

ON March 10th, seventy-five years ago, Alexander Graham Bell was working in his Boston laboratory in preparation for a test of his telephone transmitter. Unwittingly, he spilled some acid and called to his assistant in the next room for help. "Mr. Watson," he exclaimed. "Come here, I want you."

The telephone had done its first emergency job. Watson, who was in the next room by the receiver, came rushing in, shouting, "Mr. Bell, I heard every word you said, distinctly." This plea for assistance was also the first complete sentence transmitted over the telephone.

This year, the Bell system is celebrating the diamond anniversary of this notable event. The American Telephone and Telegraph Company has assembled many of the interesting stories that are a part of telephone progress in a 1951 "Telephone Almanac." In addition to noting the telephone landmarks throughout the years, the almanac also serves as a handy reference for important dates in world and American history.

There is also a 38-page bulletin containing source material for many of the events, obscure and well-known, which occurred during telephony's first seventy-five years. Typical of the interesting material is a story telling some of the background of Bell's early associates and the contributions they made to telephone progress. We all have heard of Watson from the historic first sentence that Bell uttered over the telephone. This story tells of Watson and others.

THOMAS A. WATSON was the electrician and mechanic who helped Bell in his early telephone experiments. He made the instruments and, in general, carried out Bell's ideas, but contributed many important ones of his own.

Those early experiments were financed by two men who had become interested in Bell through his work for the deaf. They were Gardiner Greene Hubbard, an attorney who lived in Cambridge, and Thomas Sanders, a leather merchant of Haverhill, Massachusetts.

Once the telephone was working well enough to be placed in service on private lines, Bell married Mr. Hubbard's daughter and sailed for England to introduce his telephone there.

So Hubbard, Sanders, and Watson became the founders of telephone service in America. Bell envisioned service on a nation-wide scale and so did these others. But at the beginning all they had were a few telephones that were being used here and there for what the founders

called "speaking tube" use; there was nothing like a service.

They tackled the problem by licensing other men to promote the use of telephones, and by assisting the licensees in every way possible, providing the best instruments, bells, and wire they could make or buy, and giving advice on administration and technical problems.

The basic needs for telephone service were (and, of course, continue to be) to find means to interconnect telephones within cities and towns for local service, and to find means to interconnect these cities and towns for long-distance service.

It was easy enough, for instance, to make switchboards that would connect a few telephones. Most exchanges opened (during 1878-1879) with thirty to fifty subscribers who were handled pretty well, whatever plan for interconnecting them was used. But with growth came complications.

On one early New York switchboard the sections were connected by brass rods running along the wall of the room underneath them. There was only room for 36 rods in the space available, so in time this board grew to many sections, serving more than 300 telephones, with the sections still connected by 36 rods. Aside from the confusion of the operators calling back and forth to each other, "Put 209 on 9," "Put 26 on 14," and so on, there was constant danger of double connections and the final difficulty that any thirty-seventh customer who wanted a number on a section out of reach of his own, would have to wait until a busy rod was cleared.

This main switchboard difficulty was solved (and many others, too) by a rare genius named Charles Ezra Scribner. As a boy of nineteen, Scribner walked into the Western Electric Company plant at Chicago with a telegraphic device. Enos M. Barton, one of the founders of "Western," recognized the youth's talent and hired him at once. It was Scribner who designed plug and socket mechanisms and adapted them to the multiple wiring invented by Leroy B. Firman, another Chicago man. Within a few years, these made it possible for an operator to handle incoming calls on any convenient number of lines, and to make connections to any of several thousand lines without having to reach beyond a normal arm's length.

Three difficulties had to be overcome before anything like good long-distance service could be provided between cities. One was to find a kind of wire that was a good conductor yet strong enough to be strung on pole lines. Bell's early telephones were demonstrated over iron wire, and many telephones talk well over steel wire today, but for longer distances the wire had to be copper. Yet copper wire, in 1876 and for some years thereafter, could not be used because it would break too easily if strung on poles. A telephone man named Thomas B. Doolittle, who was connected with a wire mill at Ansonia, Connecticut, worked out a process that hardened copper as the wire was drawn. It was over Doolittle's hard-drawn copper wire that the first long-distance service between Boston, New York, and Philadelphia was handled.

The second difficulty that hindered long-distance service was the electrical phenomenon called induction. A current over one wire induces or creates a current in wires near it. And, since the telephone transmitter puts your conversation on the wire as a series of electrical signals, it is always possible for those signals to get on a near-by wire and be heard in a distant receiver as conversation. This was finally overcome when it was found that twisting the wires around each other in pairs, or transposing them at intervals along pole lines, would cancel out the induced signals. An engineer named John A. Barrett was responsible for one method of transposition.

The third difficulty was the provision of a transmitter of suitable power for long-distance service. This was finally developed by Anthony C. White, of the American Bell Telephone Company, in 1890. His transmitter was the climax of years of study and improvement and was the forerunner of today's further improved instrument.

The March of Events

In General

AT&T's Annual Report Released

THE Bell system served nearly two million more telephones in 1950, and handled two and a half-billion more telephone calls than in any previous year, Leroy A. Wilson, president of American Telephone and Telegraph Company, stated in the company's annual report recently made public.

"The national emergency brought a new tide of telephone demand," he said. "The Bell system is alert to its essential task and is preparing further. The system will do its full part in helping to keep America secure. That is our Number One job today."

Nearly $900,000,000 were spent to expand and improve service in 1950. In the last five years the system has spent almost five and a half-billion dollars for these purposes. Investment in telephone plant is now $10,101,521,562.

There was an increase of 156,000 owners of AT&T stock in 1950—the largest in any year — and stockholders now number more than 990,000. Defense requirements and shortages of materials are making it more difficult to meet all civilian telephone needs, but the report stated that every effort to that end would be continued. There was an increase of 1,955,000 Bell telephones during 1950, bringing the system total to 35,300,000.

Recalling that the telephone industry has long been under continuous public regulation, Wilson said, "Regulatory authorities through the years have generally had the wisdom to approve levels of rates that have permitted good service, fair wages, and reasonable earnings."

Canadian Senate Studies Oil Bill

A BILL to incorporate a new pipeline company to pipe oil from Alberta's Drumheller fields to serve most cities as far east as Montreal was given second reading by the Canadian Senate last month.

Explaining the measure for incorporation of Trans-Canada Pipe Lines Co., Ltd., Senator Bouffard, of Quebec, said the company plans a 2,200-mile pipeline eastward to serve the main cities on the Canadian Pacific and Canadian National Railway lines. These would include Toronto, Ottawa, and Hull, as well as Montreal. The cost would be "at least $250,000,000."

Answering a question if piping of the oil would lower gas prices in Ontario, Senator Bouffard said it was expected that there would be a price reduction, but it was hard to say how much.

The bill was sent to committee.

Arkansas

Unitization Bill Passes Legislature

INCREASED oil and gas recovery in Arkansas is the aim of a "unitization" bill given final passage by the state legislature recently and sent to Governor McMath for signature. The bill authorizes the Arkansas Oil and Gas Commission to unitize fields on petition of owners of 75 per cent of operating interest and 75 per cent of royalty interest.

The commission, headed by O. C. Bailey of El Dorado, asked for unitization authority after the state supreme court ruled the present statutes do not contain that authority. The court ruling was on the case of Dobson *v.* Oil and Gas Commission, which developed out of a commission order in November, 1948, unitizing the McKamie-Patton field in Lafayette county.

Under unitization, oil and gas reservoir interests are pooled and the entire reservoir is operated as a unit under a fixed plan. Oil production is distributed to all parties on the basis of their tract's contribution to the total project.

Georgia

Utility Sales Tax Bill Signed

GOVERNOR Talmadge has signed a bill providing for the imposition of a new 3 per cent sales tax on all public utility charges except water bills, effective April 1st.

Described as the broadest tax of its kind in the nation, the new levy applies to virtually all sales at retail. Estimates of the revenue it will produce vary from $75,000,000 to $150,000,000 a year.

Although signing the sales tax bill, Governor Talmadge vetoed a state income tax revision bill. In its original form, the latter measure was intended to provide an upward revision of state income taxes, but as finally enacted, the governor said, it would "reduce the collection of income taxes which the state would receive by $1,500,000 to $2,000,000 annually."

Governor Talmadge said he did not believe the income tax bill "was properly integrated with the sales tax."

Illinois

Seeks to Bill Users on Bimonthly Basis

PEOPLES GAS LIGHT & COKE COMPANY last month asked the state commerce commission for permission to bill its residential, commercial, and smaller industrial customers every two months instead of monthly. It said the plan has been used successfully for years by utilities in Detroit and New York city.

The company said approximately 706,000 of its more than 900,000 monthly bills range from 60 cents to $3.01, and that bimonthly billing would be more convenient for some customers. A company spokesman said it is believed necessary to conserve materials and man power in view of the national emergency.

If industrial, commercial, or home-heating customers prefer to pay monthly, the company said it would permit them to pay an average charge in months when meters are not read. This average charge would be credited on their next bimonthly bill.

Louisiana

Urges End of Seaway Fight

THEODORE BRENT, president of the Mississippi Shipping Company, believes the time has come to stop fighting the St. Lawrence seaway and to concentrate on acquiring the tidewater channel for New Orleans.

Brent is confident that Congressmen who favor the St. Lawrence seaway would help New Orleans get the seaway there if opposition to the northern project ends. That is what he told A. B. Paterson, president of New Orleans Public Service, Inc., in a letter, contents of which were disclosed recently.

Copies of the letter were sent to U. S. Senators Allen J. Ellender and Russell B. Long, Congressmen Hale Boggs and F. Edward Hebert, Major General Lewis A. Pick, Chief of the U. S. Corps of Engineers, and civic, financial, and port leaders in New Orleans. Brent's letter stated:

> In Washington, New Orleans is classed as the bitterest opponent of the St. Lawrence seaway. The present administration has had introduced a bill authorizing joint participation by the United States and Canada in the building of this St. Lawrence seaway as a defense measure. I understand that the clans are again gathering with the idea of sending a strong delegation from New Orleans to Washington to oppose this bill.

He questioned whether it would not be the time "to quit fighting our neighbors and see if we cannot make some friends who will help us" obtain a seaway for New Orleans. Brent said he is aware that some will say it "would not be consistent for New Orleans to abandon the fight"—a fight in which New Orleans has long been in the forefront.

However, it is his contention that times have changed and the aid of Congress is necessary for authorization for and money to build a seaway linking New Orleans with deep water.

The seaway is estimated to cost about $60,000,000.

Michigan

Promises to Defend Commission

REPUBLICAN Attorney General Frank G. Millard recently promised to defend the Democratic-controlled state public service commission in future court cases, whether he agrees with its orders or not.

"I believe that the commission will decide rate cases according to the evidence and the recommendations of its staff," he said.

The issue arose when Millard's staff appeared in the Ingham Circuit Court last month in a suit over the $9,000,000 rate boost given last June to the Michigan Bell Telephone Company. Millard's predecessor, Democrat Stephen J. Roth, and Governor Williams objected to the order, which was signed by the two Republican members of the commission. They filed suit to void the increase and Michigan Bell filed suit, calling the increase insufficient.

The commission now is 2 to 1 Democratic in its make-up.

Judge Harry D. Boardman took the writ under advisement and asked attorneys to file briefs. He said it may be fall before he could rule.

Minnesota

Public Ownership under Study

A BILL to permit public ownership of electric utilities was given to the state house agriculture committee for study last month.

Under the measure, modeled after a Nebraska law, districts could be set up, empowered to buy or build generating plants and power lines, by petition of 15 per cent of the voters of a municipality.

The board of directors of the district would be elected by the people and would administer distribution of power "at the lowest possible cost of public service, nonprofit, coöperative principles."

A district could be set up regardless of whether a private power company was serving the area.

A similar bill was the subject of a long and hard fight in the South Dakota legislature. It was defeated by a narrow mar-

gin and then was passed in a special session called to reconsider.

Representative Henry Appledorn, of Pipestone, principal sponsor of the Minnesota bill, said nine southern Minnesota rural electrification co-ops were behind the bill because it would allow them to build jointly a transmission line to the South Dakota border to take advantage of power produced by dams being built along the Missouri river by the Federal government.

The bill would give the same right to other Minnesota REA's and permit them to build their own generating plants, where now they must buy from private firms, he said.

Minnesota now has 54 REA co-ops serving 165,700 customers along 69,000 miles of power lines, according to the executive secretary of the Minnesota REA association.

Under the bill before the house committee, districts would not pay taxes, but would give other units of government payments "in lieu of taxes." A district would have no power to levy taxes but could issue bonds.

Montana

House Kills Bills

THE state house of representatives recently killed, through an adverse committee report, a bill to place rural electric coöperatives under state public service commission regulation.

The house also has killed a bill which would have authorized natural gas companies to use right of eminent domain to acquire storage reservoirs. The measure had received an unfavorable committee report.

Nebraska

Power Agencies Move toward Accord

REPRESENTATIVES of four Nebraska public power agencies have formulated and signed a joint proposal as to use of Bureau of Reclamation power in the state, William E. Warne, Assistant Secretary of Interior, announced in Lincoln last month.

The 3-point proposal, in the form of a letter to Secretary of Interior Oscar L. Chapman, was said to be the agencies' answer to the Secretary's statement that the power distribution controversy must be settled in Nebraska.

Approximately thirty-five representatives of the Nebraska Public Power System, REA, the Consumers Public Power District, and the utilities section of the League of Nebraska Municipalities met at Lincoln last month to discuss the proposal. It provides:

1. The Bureau of Reclamation may contract directly with a preference customer requesting service, for power not to exceed their proportionate share of the Missouri river basin power.

2. The Nebraska Public Power System would grant a license to the Bureau of Reclamation for "wheeling" Missouri basin hydroelectric power over the NPPS transmission system for a period of thirty-five years. The NPPS would provide, operate, and maintain adequate transmission facilities, and the bureau would deliver over the facilities all power it markets in the general area served by the integrated system. The bureau would pay to NPPS a wheeling charge equal to the average cost of transmitting all power over the transmission system.

3. The NPPS and the bureau would enter into an integration agreement whereby the hydroelectric generation of the Missouri river basin plants would be integrated with the hydroelectric and steam-generating plants of the NPPS and thereby develop the greatest com-

bined firm power at the lowest over-all costs.

The proposal would open the door to formal negotiations concerning power use in the state, Warne said.

Utility Tax Plan Fails

COUNCILMAN Rees Wilkinson, of Lincoln, failed recently, by 5 to 2, in his attempt to create a committee to work out a charter amendment. It would provide that whenever a city department engages in a utility business, it should be required to pay as nearly as possible the same taxes as it would pay if privately operated.

He presented figures from Tacoma, Washington, to show that municipal utilities pay more there in lieu of taxes than in Lincoln and maintain a lower electric rate.

The council has on several occasions rejected similar attempts by Wilkinson on the theory that commercial light and water, particularly the former, pay substantially. The city light department since 1942, has paid $152,827.62 "in lieu," the total increasing from $15,578 the first year to $28,585.01 for 1950.

New York

Pennsy Blasts Public Control

BLAMING the ills which beset the bankrupt Long Island Railroad on "repressive" policies by New York state authorities, the Pennsylvania Railroad recently served notice that it has no intention of writing off its $100,000,000 investment in that carrier.

In a 20-page pamphlet addressed to stockholders, Walter S. Franklin, PRR president, said that the management of that system will present "a plan for operation of a reorganized Long Island Railroad under private ownership."

The Long Island, he insisted, "has been, and is, capable of operating, and continuing to operate, as a self-supporting enterprise if permitted to do so under just regulation."

If the recommendation to create a public authority to acquire and operate the Long Island should be carried out, the Pennsylvania official warned, the railroad he heads and its 200,000 stockholders "will, of course, have a vital interest in the terms." Public ownership has been urged since two tragic wrecks of commuter trains on the Long Island.

North Dakota

Appliance Bill Killed

THE state house of representatives last month killed a bill which would have prohibited public utility companies from selling electrical or gas appliances in competition with independent appliance dealers.

South Carolina

Federal Power Control under Attack

A COMMITTEE of the house of representatives which had investigated "the power situation" in South Carolina last month reported that there is no shortage of electric energy in the state and none in sight over the next five years. It attacked Federal "intervention" in the electric field in the state.

The report said the only "ones that say there is a power shortage are Santee-Cooper, Central Electric Power Coöperative, Inc., and a few scattered REA's."

"We are deeply concerned from what

this investigation has revealed in regards to Central Electric Power Coöperative, Inc.," the report continued. "We in South Carolina are giving too much control, too much Federal government intervention, too much Federal power over our electric energy in South Carolina. For if you get the money from Washington, it is going to have a hand in it. The Rural Electrification Administration in Washington has shown this committee how bureaucratic a bureau can be."

The committee had embodied earlier in its report the statement that the REA in Washington "refused any information to the committee," and that "neither United States Senator received any information from this agency. Their records are a closed book to us; also to the taxpayers of South Carolina and the house of representatives of our state. . . . We consider it a slap in the face of the entire state."

A total of $17,894,983 was paid in Federal, state, county, and local taxes by privately owned power companies in South Carolina in 1949, the committee reported. In this period, it said, the Santee-Cooper had paid $205,081 into the state treasury, and had paid $34,900 to the counties. Electric co-ops over the state had paid in all forms of taxes $26,549, the report said.

Referring to the figures, the report of the committee continued:

> We conclude that the private power companies are carrying the vast tax load and that public power is all but exempt from all taxes. In the light of this, we feel that private companies are being discriminated against, for most certainly public power with less than a half-million for all taxes can sell power cheaper than private companies when they are paying in the neighborhood of $18,000,000 in taxes . . . We do not want a welfare or socialistic state in South Carolina. And we need taxes to run the state government.

The 5-man committee, which was appointed at the 1950 session of the legislature, expressed the opinion that public power facilities, including the Santee-Cooper and the rural coöperatives, should be regulated by the state public service commission, which regulates the privately owned companies.

Only three members of the committee signed the report.

Virginia

Rehearing Asked on Vepco Dam

THE Virginia REA Association and 11 electric coöperatives in the state recently announced they had filed their own petition in support of a rehearing on the matter of the Roanoke Rapids, North Carolina, dam.

The Federal Power Commission recently granted the Virginia Electric & Power Company authority to build a multimillion-dollar power dam on the Roanoke river. The Department of the Interior earlier had asked for a rehearing. It also opposed Vepco's application.

The co-ops challenged the commission's ruling on all grounds used by the Interior Department, plus two other points which they said represented errors by the FPC.

The REA petition noted the commission, in its opinion, had ruled that the interveners had not shown that they would be aggrieved by approval of Vepco's application. On this point the co-ops contended that Vepco had been awarded the choice site in the government's contemplated plans for development of the Roanoke river basin with Federal dams. As a result, the petition continued, the over-all cost of government-generated power at other dam sites would be increased, which would adversely affect the co-ops.

In its second assignment of error, the co-op petition contended that Vepco would benefit directly from the Buggs Island installation, but that the license granted by the FPC had made no provi-

sion for equitable compensation for this benefit.

Chapman said he was "aggrieved" by the January 26th decision in favor of Vepco. He said the commission erred in holding that "the only function assigned by Congress to the Secretary of Interior in connection with development of the Roanoke river is to dispose of surplus power generated at Buggs Island and Philpott flood-control projects." He said the FPC also erred in finding that the Roanoke Rapids unit in the plan approved by Congress for the comprehensive development of the Roanoke river basin would serve only the purpose of providing electric power; and in holding that under the Flood Control Act the Secretary of Interior lacks authority "to arrange for or provide new sources of power for new preference customer loads to be developed in the future."

Washington

Power Act Decision Stands

THE state supreme court recently refused to reconsider its 6-to-3 decision upholding the constitutionality of the controversial 1949 power act.

The act permits two or more public utility districts to join forces to acquire properties of a privately owned public utility system. It opened the way for western PUD's to negotiate for the purchase of Puget Sound Power & Light Company at a price variously estimated at $90,000,000 to $100,000,000.

The high court technically declined to rehear the case.

Wisconsin

Court Rejects Strike Ban

THE U. S. Supreme Court on February 26th struck down a Wisconsin law which banned strikes by public utility workers and required them to submit labor disputes to compulsory arbitration.

Chief Justice Fred M. Vinson delivered the 6-to-3 decision for himself and Associate Justices Hugo L. Black, Stanley F. Reed, William O. Douglas, Robert H. Jackson, and Tom C. Clark. Associate Justice Felix Frankfurter wrote a dissent in which Associate Justices Harold H. Burton and Sherman Minton joined.

The ruling was on an appeal by a transportation workers' union which attacked validity of the state's "public utility antistrike law." The union said Florida, Indiana, Kansas, Massachusetts, Michigan, Nebraska, New Jersey, North Dakota, Pennsylvania, and Virginia have enacted similar laws.

The union contended the Wisconsin law conflicts with rights given workers by the National Labor Relations Act and violates the Constitution by imposing involuntary servitude and by invading rights of free speech, public assemblage, and freedom to contract.

Justice Vinson said the Wisconsin antistrike law conflicts with the National Labor Relations Act, and therefore cannot stand. He cited that single factor in knocking down the law.

Justice Vinson noted Wisconsin's argument that Congress (a) in enacting the Taft-Hartley labor law with provisions dealing with national emergencies showed an "intent to carve out a separate field of emergency labor disputes" but (b) in mentioning only national emergencies intended by silence to leave the states free to regulate local emergency disputes.

Justice Vinson held for the majority, however, that the Wisconsin law is not "emergency" legislation but rather "a comprehensive code for the settlement of labor disputes between public utility employers and employees."

He emphasized that Congress "has closed to state regulation the field of peaceful strikes in industries affecting commerce."

Progress of Regulation

Objections of Coal Operators Fail to Halt Natural Gas Pipeline

THE Colorado commission authorized construction of a natural gas pipeline into a coal-producing and coal-using area where residents of the area had voted 25 to 1 in favor of a franchise grant to a company seeking to furnish gas and electric service to the community.

The coal operators' association actively opposed the certificate award. They contended that the introduction of natural gas into the area would have a detrimental effect on their industry and would cause a great loss of employment and a drying up of a part of the state's economic structure. One witness for the coal operators asserted that "95 per cent of the gas dollar goes to Wall Street while the coal dollar stays here at home."

The commission conceded that the coal industry would suffer a loss of revenue if natural gas service were authorized but pointed out that it was not fair to say that all of the ills of the coal industry spring from the use of natural gas by the public.

The commission pointed out that it had no obligation to protect the coal industry by refusing to permit a community to be supplied with the fuel of its choice. On this point the commission quoted from its decision in a similar proceeding ([1934] 7 PUR NS 34) involving the city of Colorado Springs:

> . . . this commission, which is empowered merely to administer the details of the policy and laws established by our legislature, has no power to prohibit what would otherwise be sound and reasonable action by a utility because such action would result in injury to any other industry, whether it be coal, gasoline, or other business. The city of Colorado Springs has in a lawful manner decided that it is for the best interests of the city that natural gas be distributed therein. Under our statute a utility may, without any authority from this commission, extend its service into contiguous territory not already served by a similar utility.

The commission did not feel that it should deviate from this policy until the legislature specifically vests it with the power "to administer a *coup de grâce* in any industry now or hereafter operating in the state." *Re Grand Valley Gas Co. (Application No. 10394, Decision No. 36056).*

License Contract Payments Allowed in Telephone Rate Case

THE Montana commission authorized a telephone rate increase, to keep the company on a sound financial basis. Increased rates which had been authorized in 1948 yielded a return of only 3.46 per cent. This was inadequate, according to the commission. The new rates were expected to yield a return of 5.19 per cent. The commission, recognizing the argument that the company must be

financially sound if it is to attract capital and furnish adequate service, said that rates must be reasonable both to the utility and the patrons.

In discussing its duty to fix just and reasonable rates, the commission said that this duty requires an examination of all the facts and that it exists irrespective of whether a protest is made. It pointed out that a hearing before the commission is not a partisan hearing with the commission on one side arrayed against the utility on the other, but is an administrative investigation instituted to ascertain and make findings of fact.

The company's license contract with its parent corporation, as well as its practice of buying supplies from an affiliated manufacturer of telephone equipment, was questioned. License contract payments were held to be a proper operating expense. The commission concluded that the company received value from those payments and that they were advantageous to the company and its patrons.

Evidence also indicated that the purchases from the affiliated manufacturing company were advantageous to the company and its patrons. The commission said that in the absence of reason to question the reasonableness of these practices it would not interfere with the decisions of the company's management.

The commission rejected the cost of establishing the business as a proper separate item of the rate base. It also ruled that property held for future use is not a proper item to be included in the rate base.

However, the commission deemed it unnecessary to fix any specific rate base since the rates approved were considered reasonable to the company and the patrons. In authorizing the rate increase, the commission said that 4-party rates should not generally be raised. It pointed out that the 4-party residence phone is the basic type of residence service and should be maintained at a level within the means of the most users. *Re Mountain States Teleph. & Teleg. Co. (Docket No. 3802, Order No. 2218).*

Integration of Electric Properties in Holding Company System Approved

THE Securities and Exchange Commission authorized the North American Company to transfer all of the common stock of its public utility subsidiary, Missouri Power & Light Company, to another subsidiary, Union Electric Company of Missouri, a holding company and a public utility. The latter company would issue additional common stock to its parent company.

The commission pointed out that it had previously held that the electric properties of Union Electric Company constituted the principal integrated public utility system to be held by North American.

At that time it had also found the utility properties of Missouri Power & Light Company could not be retained by the holding company. However, the commission had stated that its decision did not foreclose future applications looking to the possible integration of the properties with the holding company's retainable properties.

The electric operations of the two subsidiaries were conducted in the same general area and the properties were interconnected at several points. The properties could be economically operated as a single interconnected and coördinated system. Furthermore, the combined electric operations of these companies would not be so large as to defeat the legislative purpose of the Holding Company Act. The commission concluded that the electric properties of the two companies constituted an integrated public utility system within the meaning of the act and that Union Electric Company's acquisition of Missouri Power & Light Company's electric properties should be approved.

The commission also permitted the

retention of Missouri's gas business as an additional system, subject to reexamination of the retainability status when an adequate supply of gas should become available. In doing so the commission pointed out that it was satisfied that the gas properties constituted a single integrated public utility system, but it was not satisfied that the separation of the gas properties from the electric properties would result in the loss of substantial economies. It added that it has been its policy to view claimed losses in economies only in the light of substantial benefits which would accrue from healthy and aggressive competition between gas and electric services.

The gas supply has been limited either by war conditions or Federal Power Commission orders. Consequently, the commission said that the gas properties have never been operated under normal conditions. In this setting it found it difficult to determine whether, or to what extent, claimed losses in economies would be offset by benefits resulting from competition between the gas and electric businesses which might exist if there were an adequate gas supply and a separation of control. The commission left this question open for action at a later date when more gas might be available.

Retention of Missouri Power & Light Company's heating business was also approved, since it was found to be reasonably incidental to the electric operations. The commission pointed out that the courts have held that "other businesses" cannot be retained unless they have a functional or operating relationship to the integrated public utility system. The commission held that the water and ice businesses should be disposed of within six months since they were not reasonably incidental or economically necessary or appropriate to the operations of an integrated electric public utility system. *Re North American Co. et al. (File No. 70-2066, Release No. 10320).*

Temporary Authority to Resume Service

THE New York commission granted a bus operator a temporary certificate to resume a bus service for which the certificate had been revoked. The carrier was ordered to apply to those municipalities whose consent is required, within twenty days of the commission's order.

If, after a public hearing, a municipality denies its consent and so notifies the commission, the temporary certificate is to be rescinded.

A proposal that certain pick-up zones be restricted was disapproved, notwithstanding the petitioner's acquiescence, on the ground that this was not in the public interest and would create dissatisfaction with the public using the service and would be impractical to enforce. *Re Shaver (Case 15148).*

Project License Not Required When Having Only Slight Effect On Interstate Commerce

THE Federal Power Commission made a finding that the interests of interstate or foreign commerce will not be affected by construction of three developments proposed by the Brazos River Conservation and Reclamation District on the Brazos river in Texas above the point which the commission had previously found to be the head of navigation. This finding was made because of the filing of a declaration of intention pursuant to § 23(b) of the Federal Power Act.

The commission said that the only finding which it was called upon to make was whether the interests of interstate or foreign commerce would be affected by the proposed construction. It did not

make a determination as to navigability above the point previously involved in another case. The commission stated as follows:

> The only suggestion which has been advanced to indicate any possible effect upon the interests of commerce which could be caused by the three proposed developments has been that the alternative storing and releasing of water in the three proposed reservoirs would affect the navigable capacity of the Brazos river below Old Washington. There may be some slight possibility of an effect upon the Brazos river below Old Washington under exceptional circumstances, but that possibility is too remote to justify the finding required under § 23(b) of the Power Act before a Federal license must be obtained.

Re Brazos River Conservation and Reclamation District (Docket No. E-6258).

Cash Advanced to Subsidiary to Assure Supply of Steel Pipe For Proposed Pipeline

THE New England Gas & Electric Association was authorized by the Securities and Exchange Commission to make a cash advance to its recently formed subsidiary, Algonquin Gas Transmission Company, to enable the latter company to meet required payments under a steel purchase contract with a steel fabricator to receive steel pipe. The commission concluded that the loan would not impair the financial integrity of the holding company and that any delay in authorizing the loan might be prejudicial to the interests of investors and consumers.

The subsidiary was organized to build a pipeline to transport natural gas to the New England area. It had applied to the Federal Power Commission for authority to construct and operate the line. The Federal Power Commission had granted authority to a rival company to serve part of New England but stated that other New England areas should be served by the subsidiary upon its showing that it had an adequate supply of natural gas and that its expected income would render the project economically feasible.

The Securities and Exchange Commission said that the holding company's desire to assure its subsidiary a supply of steel was understandable, noting that steel pipe was becoming increasingly difficult to obtain. Without an assurance of an adequate supply of steel pipe the subsidiary might not be able to build its proposed pipeline in the event the Federal Power Commission should determine that a certificate should be issued to it. Furthermore, in the face of the increasing steel shortage, even if the subsidiary were denied a certificate, the risk of the holding company in advancing the funds to the subsidiary was considered slight. In this connection the commission noted that the pipe which the subsidiary would receive would be pledged as security for the advance. *Re New England Gas & E. Asso. (File No. 70-2522, Release No. 10259).*

Books of Account Do Not Support Rate

THE New Jersey Board of Public Utility Commissioners ordered the cancellation of increased water rate schedules for failure to show that existing rates were insufficient or to show that the proposed increases were just and reasonable. Testimony in support of the proposed rates was supplied by the company's manager and accountant. This related solely to balance sheets and income statements prepared from the company's book of account. No supporting proof was submitted. The board said its reading of the opinion of the state supreme court in *Re*

Public Service Coördinated Transport (1950) 74 A2d 580, led to the conclusion that the record was not adequate. The court in that case had declared that neither the court nor the board could accept the books of account of a public utility at face value; that presentation of a *prima facie* case does not meet the burden of proof; and that there must be proof in the record not only as to the amount of various accounts, but also evidence from which the reasonableness of the accounts can be determined. *Re Cranbury Water Co. (Docket No. 5312).*

Airport Limousine Allowed to Make More Stops

THE Massachusetts commission authorized an airport limousine company to make additional stops along the routes described in its certificate, which otherwise would be restricted.

Overruling a protest by representatives of the taxicab industry, the commission pointed out that restricting an airport limousine company to certain stops is not intended to protect private carriers, such as taxicabs, from the competition of regular route carriers. Since it is the commission's duty to make certain that the public is provided with common carrier service, such restrictions will be modified if public convenience and necessity require such service, notwithstanding prejudice to competing private carriers. *Re Airways Transp. Co. (DPU 8454-C).*

Existing Carriers' Expansion to Provide New Service Upheld

THE supreme court of Ohio affirmed a commission order denying certain motor carrier certificates where the existing carrier expanded its operations to provide such additional service within the prescribed 60-day period.

The protesting carriers argued that such an order was against the weight of evidence and that the existing carrier did not expand facilities to furnish adequate service. The court found that the construction of new terminals and docks and replacement of vehicular equipment with new trucks which would haul more freight in less trucks was substantial evidence to support such an order. *Modern Motor Express, Inc. v. Public Utilities Commission, 95 NE2d 764.*

Electric Rates for Multiple Units Should Differ from Rates for Single Dwelling Units

THE Colorado commission, in authorizing an individual to operate an electric utility in a resort area, discussed the establishment of monthly minimum and metered rates and their application to tourist cabins. The system will have between twenty and thirty customers in winter and between eighty and eighty-five customers in summer. The increase of customers in summer will result from the tourist influx.

In discussing the matter of setting meters in each individual residence in a cabin or trailer camp, the commission said that the utility should not be concerned with the type of business its customers engage in, so long as they pay their electric bills and abide by the company's rules and regulations. It is only when cabin camps purchase electricity from a utility and then submeter and sell it in competition with the utility that it need be concerned. The utility can avoid this situation by filing a rule prohibiting the resale of electricity under residential and business rates. Violation

of this rule could be the basis for service denial.

The commission believed that the customer should not, on the other hand, be required to have each individual rental cabin metered by the utility or to pay a minimum charge for each cabin so metered if he elects, at his option, to take service under one master meter under the proper rate.

Cabin operators testified that if they were required to have a meter installed at each of their rental cabins and to pay a guaranteed monthly minimum, they would be better off to generate their own electricity, since it would be cheaper. The commission, in view of its past experience with similar operations, believed that the company would stand a better chance of succeeding in business if the minimum charge did not alienate the few prospective customers.

When a multiple unit customer is served, he is not entitled to the same rate as a single dwelling unit, according to the commission. The multiple unit service puts a greater demand on the system, and the larger usage enables that customer to buy energy on the lower block of the rate. To put each unit on a separate meter would be one solution, but, in this particular case, where the cabins were used only part time, it would mean an additional investment for the cabin camp operator in wiring. It would also require an additional investment for the utility in the setting of individual meters and in added time in reading and billing.

The commission approved a multiple unit service rate which eliminated the necessity of individual meters and reduced the guaranteed monthly minimum for multiple dwelling units. This rate also protected the utility by increasing the first two blocks of the rate to take care of the additional revenue needed for this type of service. *Re Fesser (Lake City Light & Power Co.) (Application No. 10743, Decision No. 35715).*

Short Extension of Bus Line Approved

A COMMISSION order compelling an omnibus company to extend service from its terminal in a village to a college 1½ miles away was affirmed by a New York court.

The company opposed the order on the ground that it would be compelled to undertake a new venture beyond its commitment for public service, and would therefore be deprived of property without due process of law. The court, although recognizing the underlying principle, held that an order to extend service in an area served would not fall within this rule and that it would be illogical to treat this short intervening territory as not being within the community the carrier was serving.

The court further held that issues of confiscation, rates, and return raised by the carrier need not be considered in a case involving such a comparatively short extension. Such questions would have to be considered in a rate proceeding. *Utica Transit Corp. v. Feinberg et al. 100 NYS2d 916.*

Federal Commission Has Jurisdiction over Intrastate Exchange of Electric Facilities

THE exchange of electric facilities located within the state of Louisiana by two companies which are public utilities within the meaning of § 203 of the Federal Power Act was approved by the Federal Power Commission as being consistent with the public interest and conducive to the operating economies.

The commission refused to dismiss the companies' application for approval of the transaction for lack of jurisdiction notwithstanding their request that it do so. *Re Louisiana Power & Light Co. et al. (Docket No. E-6333).*

Possible Transfer Not a Bar to Project

THE Missouri commission held that authority to construct or rebuild electric transmission lines to a capacity necessary to serve present and future requirements of a public utility cannot be denied, if convenience and necessity have been proved, simply because there is some chance or threat that the property in question may be transferred to some other operator in the future. The contention had been made that the company was not building these lines for its own operation but that it intended to lease them to some governmental agency for operation, thereby removing the facilities from the jurisdiction of the commission. *Re Sho-Me Power Corp. (Case No. 11,891).*

Other Important Rulings

THE Wisconsin commission held that while it has power to authorize the issuance of securities and to fix the terms and conditions of such issuance, it does not have power to approve or disapprove of the sale of securities to particular purchasers in preference to or to the exclusion of others. *Re La Crosse Teleph. Corp. (2-SB-427).*

The Securities and Exchange Commission held that it has jurisdiction over a contract between a holding company, its gas utility subsidiary, and a nonaffiliated industrial research company under which the latter company will perform research work to develop new processes or products based on natural gas and its constituents. *Re United Gas Corp. (File No. 70-2458, Release No. 10237).*

The Federal Power Commission, in authorizing the construction of natural gas pipelines, reiterated an earlier opinion that a corporation owning and operating a natural gas transmission pipeline system located in several states and which is engaged in the transportation of natural gas in interstate commerce for resale for ultimate public consumption is a natural gas company within the meaning of the Natural Gas Act. *Re Arkansas Louisiana Gas Co. (Docket No. G-1456).*

The supreme court of Alabama held that a lower court reversal of a commission finding on the ground that it is contrary to the substantial weight of evidence must be sustained, in the absence of a certified transcript of the record of the commission proceeding on which the finding rested. *Public Service Commission v. Avery Freight Lines (49 So2d 170).*

The court of appeals of Georgia held that a state commission rule requiring the transferee of a motor carrier certificate to guarantee payment of the transferor's legal obligations was an unlawful burden on interstate commerce where the transferor, as the original carrier, lost goods of an interstate nature. *Atlanta-Asheville Motor Express v. Superior Garment Mfg. Co. (62 SE2d 376).*

The court of appeals of Kentucky held that authorization for a motor carrier certificate was arbitrary and not supported by substantial evidence where the record failed to show that existing carriers were not able to furnish service as required. *Whittaker v. Southeastern Greyhound Lines, 234 SW2d 174.*

The Pennsylvania commission approved the acquisition by a water authority of the property of a water company where it would not adversely affect the public interest, where the consideration to be paid was reasonable, and where the revenues which the authority would derive from the operations of the system under its present rates would be adequate for the payment of operating and maintenance expense, for the making of plant renewals and replacements, and for the payment of the principal and interest on

the bonds which would have to be issued to finance the acquisition of the system. *Re Lansford-Coaldale Joint Water Authority (Application Docket No. 75906, 75907).*

An air carrier's request for authority to put into effect low-fare coach service in order to attract migrant Puerto Rican laborers to this type of travel from the island of Puerto Rico to the United States was denied by the Civil Aeronautics Board, since this type of travel is most susceptible to group movement which is usually made at charter rates. *Re Eastern Air Lines (Docket No. 4505).*

A telephone company which had earned a return of from 2.40 to 2.83 per cent in preceding years was allowed a rate increase by the Connecticut commission so that it would earn about 5.7 per cent and have funds to finance necessary capital improvements. *Re Woodbury Teleph. Co. (Docket No. 8430).*

The Wisconsin commission, in authorizing a telephone company to increase rates to produce a return of 6 per cent on a net book value rate base, allowed higher rates for rural common battery service than for rural magneto service, since conversion to common battery would require the purchase of new instruments and construction of additional circuits to divide the company's existing lines. *Re Footville Teleph. Co. (2-U-3425).*

The Colorado commission denied authority for an extension of motor carrier facilities on the principle that duplication of adequate common carrier service, or the granting of an additional certificate where common carrier service is inadequate and the carrier is willing to correct the deficiency under the direction of the commission, is unwarranted because competition leads to waste, duplication of investment, and duplication of service and expense. *Re Fulbright (Application No. 10827-Extension, Decision No. 35878).*

Titles and Index

Preprints in This Issue of Cases to Appear in
PUBLIC UTILITIES REPORTS

Titles

Index

PUBLIC UTILITIES REPORTS

CONNECTICUT PUBLIC UTILITIES COMMISSION

Re New York Telephone Company

Docket No. 8409
January 2, 1951

PETITION *by telephone company for increase in rates for service in division adjacent to state line; increased rates authorized.*

Apportionment, § 7 — Telephone operations — Division of out-of-state company.

1. Evidence of revenues, expenses, and investment in property in a Connecticut division of a statewide New York telephone company and a separation between Connecticut interstate and intrastate business were held not to be sufficiently trustworthy upon which to find proposed rates for the Connecticut division reasonable where special studies had been made to determine results of operations in Connecticut, involving a high degree of accounting and engineering research, and intrastate operations had been separated from interstate operations in accordance with the Separations Manual of the National Association of Railroad and Utilities Commissioners, p. 5.

Rates, § 648 — Evidence — Inadequacy of proof — Resort to secondary evidence.

2. The Commission, upon finding that evidence of revenues, expenses, and investment in property in a Connecticut division of a statewide New York telephone company is not sufficiently trustworthy upon which to find proposed rates reasonable, must resort to secondary evidence if any rate relief is to be afforded under circumstances of a material increase in costs generally since the present rate schedule was filed, p. 5.

Rates, § 182 — Reasonableness — Value of service — What the traffic will bear.

3. The value of service to the customer, or "what the traffic will bear," as the upper limit of rates has a status in regulatory law as representing the legal maximum that a utility company may exact of a customer, although this upper limit is essentially determined by economic principles, p. 15.

Rates, § 209 — Unit for rate making — Telephones — Division of out-of-state company.

4. Determination of reasonable rates by resort to secondary evidence neces-

sarily requires consideration of a Connecticut division of a statewide New York telephone company as a part of the corporate entity of the company where evidence as to allocation of costs is unacceptable; and it also requires consideration of the company's historic policy of pricing its services by rate groups, p. 16.

Rates, § 538 — Telephone — Grouping of exchanges.

5. Customers may be grouped together for the purpose of fixing rates where the conditions under which they are served are substantially similar with respect to the customers in the classification; and the grouping of exchanges by the number of connected telephones in the exchange is merely classification of customers in the telephone industry for the purpose of fixing uniform rates within each group, p. 16.

Rates, § 538 — Telephone — Exchange grouping — Division of out-of-state company.

6. Group classification of telephone exchanges was held to establish the area of comparability where rates of a Connecticut division of a statewide New York company were involved; and inasmuch as the two exchanges comprising this division would fall into a certain rate group if they were a part of New York state, the rates applicable to that group, recently fixed on a compensatory level in New York, were adopted as a measure of reasonable rates in affording the company needed rate relief, p. 16.

Rates, § 565 — Telephone — Coin box service.

7. An increase in the minimum rate from 5 cents to 10 cents for public and semipublic telephone service, commonly called coin box telephone service, was approved for a Connecticut division of a statewide New York telephone company where a minimum 10-cent rate had been authorized by the New York Commission within the state of New York, in order that part of the increased costs of supplying telephone service should fall upon the user of coin box service, p. 17.

Rates, § 538 — Telephone — Group classification.

Discussion of the principles followed in fixing telephone rates of a statewide telephone company on a statewide basis with group classification of exchanges, p. 11.

Rates, § 209 — Unit for rate making — Statewide telephone company.

Discussion of the principle of establishing rates of a statewide telephone company on a statewide basis, p. 11.

By the COMMISSION:

The Application and Proposed Increase in Rates

The New York Telephone Company, a wholly owned subsidiary of the American Telephone and Telegraph Company, supplies telephone service in the state of New York exclusively, except for its Connecticut division which comprises two exchanges, Byram River and Greenwich, both in the town of Greenwich, Connecticut. The Southern New England Telephone Company also supplies telephone service in the town of Greenwich serving, however, only 22 per cent of the total telephone stations therein, the remainder, comprising 78 per cent of the total, being supplied by the New York Telephone Company.

Byram River exchange is composed of that part of the town of Greenwich within the communities of East Portchester and Glenville and north to the New York state line. The remainder of the town served by the New York Telephone Company is in the Greenwich exchange. Byram River exchange is served from a central office in Port Chester, New York, and Greenwich exchange is served from a central office within the boundaries of the Greenwich exchange. Both exchanges are manually operated, that is, through telephone operators.

By application filed with the Commission on June 29, 1950, the New York Telephone Company amended its schedule of rates now in force in its Connecticut division so as to yield approximately $135,000 in additional operating revenues annually. The principal change in rates affects local service or subscriber station revenues. The present 5-cent local rate for public telephone pay stations would be increased to 10 cents. The local calling areas of the two exchanges would be extended, thereby eliminating some interstate and intrastate toll revenues in a relatively incidental amount. The exchanges which would be added to the Byram River exchange by this extension of the local calling area are Armonk Village, Harrison, and White Plains, New York, with the effect of increasing the number of telephone stations within the local calling area of the Byram River exchange from 31,346 telephones to 61,096 telephones. The exchanges which would be added to the Greenwich exchange by this extension of the local calling area are Stamford, Connecticut, and Armonk Village, Bedford Village, Port Chester, and Rye, in New York, thereby increasing the total stations within the local calling area from 19,545 to 68,633 telephones. The present rates in the Connecticut division have been in force since May 26, 1930.

We show in the following table the principal rates, present and proposed, for residence and business service within the local calling area of the two exchanges, excluding the Federal Excise Tax:

TABLE I

Type of Service	Present Monthly Rates Byram River	Greenwich	Proposed Monthly Rates Including Extension of Primary Calling Area
Residence			
Individual line	$3.75	$3.50	$5.00
2-Party line	3.25	3.00	4.25
4-Party line	2.75	2.50	3.75
Business			
Individual line (Unlimited)	8.00	7.00	12.00
Individual line (Message Rate)	6.00*	6.00*	6.50*
2-Party line (Unlimited)	6.25	5.75	Not Available

*Includes 75 outgoing local calls. Additional outgoing local calls charged on a downward sliding scale starting at 5 cents each.

In its application to the Commission, the company stated it had delayed filing the amended schedule until final action had been taken by the New York Public Service Commission upon the company's application for an in-

crease in rates in that state. The New York Public Service Commission in its order dated May 10, 1950 (Case 14,131), 84 PUR NS 267, which was made a part of the record of this proceeding, authorized an increase in rates in that state for the New York Telephone Company, including an increase from 5 cents to 10 cents of telephone pay stations, following a series of hearings and an order granting interim relief on June 9, 1949.

Pursuant to the provisions of § 5409 of the General Statutes, the Connecticut Commission, in its order of suspension and notice of hearing dated August 9, 1950, suspended the proposed schedule of rates until further order pending an investigation. The Commission also ordered on August 9, 1950, that an investigation be made of the reasonableness of the amended schedules of rates and for that purpose assigned a hearing to be held at its office in Hartford on September 11, 1950. Notice of the time and place of the hearing was given to the New York Telephone Company, to the town of Greenwich, and to other interested parties, as fully appears from Commission's order of notice and return of its secretary thereon, on file. Public notice was also given by advertisement in the Greenwich Time, a newspaper having a circulation in the town of Greenwich. The hearing was continued on September 12th, October 11th, and concluded on October 25, 1950. While the period provided in § 5409 of the General Statutes for the Commission to act upon the application expired on December 1, 1950, the company, in view of the time required for investigation by the Commission, waived the provisions of statute until January 2, 1951.

The New York Telephone Company has experienced, like telephone companies generally throughout the nation, a marked increase in the cost of providing telephone service since the end of World War II. Commissions generally throughout the country, including the Connecticut Commission (Re Southern New England Teleph. Co., Docket No. 7953, October 17, 1947, 73 PUR NS 185), in granting rate relief to the telephone industry since the end of World War II, have observed this same trend. Expansion of telephone service was restricted and materials and equipment were not available for extension of service during the war period, as a result of which the New York Telephone Company used up its reserve margin of telephone plant. The company has been able to meet the demands for new telephones from its subscribers in its Connecticut division occurring since the end of the war. It has found it necessary, however, to ask many new applicants to accept party-line service rather than the individual line service which they desired.

It is a general principle in the telephone industry, as will be discussed below, to group exchanges according to the number of telephone stations which may be called without toll charge and a uniform schedule of rates applies in all exchanges within each group. Upon that standard of comparison the residence and business rates proposed for the Connecticut division of the New York Telephone Company would be materially higher than the rates of that company now in force in the state of New York un-

der the recent decision of the New York Public Service Commission, referred to above, for exchanges having telephones comparable in number with the two exchanges in the Connecticut division as proposed by the extension of the local calling areas. The justification for this disparity is a principal issue in this case, as will be discussed below.

[1, 2] The New York Telephone Company does not maintain separate accounting records of the cost of its telephone plant or of its revenues and expenses relating to its Connecticut division and its chief accounting supervisor, testifying for the company, said it is impracticable to keep such accounting records on a current basis. Therefore, the company's accountant and engineer made studies to separate from total system operations, as shown on the company's books, the results of its operations in the state of Connecticut. For the purpose of these studies the system operations of the company for the six-months' period ended March 31, 1950, was used by the company. The portion applicable to the state of Connecticut, as determined by these studies, was then further broken down by the company between intrastate and interstate operations. These studies by the company for the six-months' period ended March 31, 1950, indicate that the company's operations in Connecticut for the period resulted in a substantial loss and that under the proposed higher rates the company would continue to operate in Connecticut at a substantial loss. The results of these studies, as apportioned by the company between its Connecticut intrastate and interstate business, indicate that its intrastate operations were and are responsible for the present loss and the future loss, measured on the net book cost of plant plus working capital determined by the company to be devoted to its Connecticut intrastate operations. In contrast, these same studies indicate that the company earned for the period a substantial profit on its Connecticut interstate operations and that under the proposed rates it would continue to earn a substantial profit on its Connecticut interstate operations.

The magnitude of the separation problem is apparent in part when it appears from the Company's Exhibit II that as of December 31, 1949, the New York Telephone Company reported total investment in telephone plant in service of $1,322,489,137 of which total only $3,196,442 was apportioned to the state of Connecticut in the company's special studies. That cost of plant apportioned to Connecticut was further broken down by the company between the cost of plant used in telephone service interstate and telephone service intrastate. As finally broken down, for telephone plant in service of $3,196,442 in the Connecticut division, only $522,469 thereof was apportioned to Connecticut interstate business and the remainder of $2,673,973 was apportioned to Connecticut intrastate business.

The results of these special Connecticut separation studies under the present rates, as shown in Company's Exhibit VIII, are set forth in Table II as shown on page 6.

As shown in this table, the company claims a loss for the six-months' period of over $93,000 on its Connecticut intrastate operations, a profit of almost

TABLE II

CONNECTICUT SEPARATION: OCTOBER 1, 1949–MARCH 31, 1950
RESULTS OF INTRASTATE AND INTERSTATE OPERATIONS

	Total Connecticut	Apportionment to Services Intrastate	Interstate
1. Operating Revenues	$506,833	$361,561	$145,272
2. Operating Expenses and Taxes			
Operating Expenses and Taxes Excluding Income Taxes	631,001	503,624	127,377
Income Taxes	(46,486)	(52,636)	6,150
Total Operating Expenses and Taxes	584,515	450,988	133,527
3. Ratio (2/1)	1.1533	1.2473	.919
4. Income Deductions (Net) Applicable to Telephone Operations	$4,741	$3,898	$84
5. Earnings Available for Interest and Dividends (1–2–4)	(82,423)	(93,325)	10,902
6. Original Cost of Plant—January 1, 1950	$3,196,442	$2,673,973	$522,469
7. Depreciation Reserves	1,252,889	1,044,273	208,616
8. Net Plant—Books (6–7)	1,943,553	1,629,700	313,853
9. Working Capital	109,699	87,250	22,449
10 Net Property—Books (849)	2,053,252	1,716,950	336,302
11. Rate Earned on Net Property—Books, Annual Basis (5/10)	(8.03%)	(10.87%)	6.48%

( ) Denotes negative amount.

$11,000 on its Connecticut interstate service, and a total loss for the Connecticut division of over $82,000.

The results of these special Connecticut separation studies under the proposed rates as shown in Company's Exhibit IX are set forth in Table III below:

TABLE III

CONNECTICUT SEPARATION: OCTOBER 1, 1949–MARCH 31, 1950
WITH PROPOSED RATES
RESULTS OF INTRASTATE AND INTERSTATE OPERATIONS

	Total Connecticut	Apportionment to Services Intrastate	Interstate
1. Operating Revenues	$567,496	$440,761	$126,735
2. Operating Expenses andTaxes			
Operating Expenses and Taxes Excluding Income Taxes	617,441	506,606	110,835
Income Taxes	(19,778)	(25,284)	5,506
Total Operating Expenses and Taxes	597,663	481,322	116,341
3. Ratio (2/1)	1.0532	1.0920	.918
4. Income Deductions (Net) Applicable to Telephone Operations	4,595	3,881	71
5. Earnings Available for Interest and Dividends (1–2–4)	(34,762)	(44,442)	9,680
6. Original Cost of Plant—January 1, 1950	3,198,469	2,734,767	463,702
7. Depreciation Reserves	1,253,738	1,068,394	185,344
8. Net Plant—Books (6–7)	1,944,731	1,666,373	278,358
9. Working Capital	112,068	92,316	19,752
10. Net Property—Books (8–9)	2,056,799	1,758,689	298,110
11. Rate Earned on Net Property—Books, Annual Basis (5/10)	(3.38%)	(5.05%)	6.49%

( ) Denotes negative amount.

As shown in this table, the company claims it would operate at a loss of over $44,000 on its Connecticut intrastate operations for the six-months

period, at a profit of over $9,000 on its Connecticut interstate service and at an over-all loss for the Connecticut division of almost $35,000.

The Methods Followed in Making the Special Studies

The basic studies of operating revenues and expenses of the Connecticut division were characterized by the accountant, who explained the exhibits as representing the intrastate portion of the revenues and expenses of that division and as requiring analysis by the engineer, with respect to the expenses, to determine the total operating expenses of the division. The accountant prepared the basic study and the engineer made the final adjustments and transfers in revenues and expenses to complete the study.

In order to determine the total operating expenses and taxes of the company as a whole that should be allocated to the Connecticut division, he had to study the maintenance and depreciation expenses and taxes related to physical property in New York state used in serving Connecticut and assign to the Connecticut division the proportions of those expenses relating to that division. He had to determine also, as part of the expense in supplying service in the Connecticut division, the traffic, commercial, revenue accounting, pension, and license expenses, as well as the Federal Income and Social Security taxes of the company as a whole.

When the engineer prepared his study of the revenues and expenses for the division under the proposed rates, shown in Table III, he had the additional problem of adjusting his expenses and revenues for the division arising out of the loss of intrastate toll revenue between Greenwich and Stamford and interstate toll revenue between the Connecticut division and the exchanges in New York which would be added to the local calling area under the proposed rates. It became necessary also for him to adjust his total revenues and expenses for the division between the intrastate and interstate portions thereof.

Thus, for the six months ended March, 31, 1950, total operating revenues booked to the Connecticut division, in amount of over $598,000, were decreased by over $237,000, almost entirely with respect to toll revenues intrastate and interstate, leaving total intrastate revenues for the Connecticut division of over $361,000 as the adjusted amount booked to Connecticut intrastate by the accountant. This amount was subsequently increased by $145,272 representing the Connecticut division's portion of interstate toll revenues under the division of revenues contract making total operating revenues in the Connecticut division of about $506,000.

The accountant determined for the same period total operating expenses and taxes for the Connecticut division in amount of $409,000 and decreased them by only $2,000 leaving total operating expenses and taxes with respect to the division in amount of about $407,000. Likewise, this amount was subsequently increased by about $177,000 representing the Connecticut division's portion of operating expenses incurred outside of Connecticut, making total operating expenses chargeable to the Connecticut division of about $584,000.

The adjustment downward of total

operating revenues apportioned to the Connecticut division of over $598,000, as determined by the accountant, to over $506,000, as determined by the engineer, and its separation into its intrastate and interstate portions of $361,000 and $145,000 respectively (Table II), is related entirely to toll service revenues and the manner of determining apportionment of toll revenues between the Long Lines Department of the American Telephone and Telegraph Company, the New York Telephone Company, and any other telephone company associated in the supplying of toll service. The engineer characterized total toll revenues of $309,000 booked to the Connecticut division, and the adjustments thereof in amount of $257,000, as made by the accountant, as not revenues but rather amounts billed the Connecticut subscriber. Because the New York Telephone Company acts as an agent for the Long Lines Department of the American Telephone and Telegraph Company, the New York Telephone Company actually billed the Connecticut subscribers for toll service $309,000 during this six-months' period, of which $257,000 represents associated company long-distance interstate revenue and Long Lines toll revenue, leaving the adjusted amount booked to Connecticut of only $52,000.

We have just spoken of the problem presented in apportioning company revenues and expenses to the Connecticut division and we briefly mention now the problem presented in the same special studies in determining a rate base for the Connecticut division. Here the engineer found it necessary to assign to the Connecticut division the telephone plant in New York state related to supplying service in Connecticut, which also involved a high degree of accounting and engineering research, and then a separation of the property between Connecticut interstate and Connecticut intrastate business, to which we refer in more detail below under the subheading "The Company's Separation Study."

A high degree of intricacy is apparent in the apportionment of property, revenues, and expenses of the company as a whole into the part relating to the Connecticut division and its further separation into Connecticut interstate and Connecticut intrastate business. It is therefore readily understandable that the company's engineer would admit that the entire problem for him and the accountant of determining the property, revenues, and expenses of the company as a whole related to the Connecticut division was difficult, particularly on account of intrastate toll revenues.

Before we take up the next subheading "The Company's Separation Study," we touch upon a few matters decision upon which is not necessary in view of the conclusion arrived at but which nevertheless require mention, since these matters were mentioned on the record. They relate to operating expenses for the company as a whole, namely, the license contract between the American Telephone and Telegraph Company and the New York Telephone Company, contractual relations with the Western Electric Company, pension charges, and depreciation charges. In the exhaustive hearing before the New York Public Service Commission the conclusion was reached therein that charges of the New York Telephone Company to op-

erating expenses were reasonable under its license contract with the American Telephone and Telegraph Company and that sales from Western Electric Company to New York Telephone Company did not require repricing. While the New York Public Service Commission disallowed, for the purposes of rate making, $250,000 as an annual charge to operating expenses, in connection with the freezing in 1941 of the company's liability for pensions determined on an actuarial basis, that adjustment, if applied to the Connecticut division, would be insignificant.

During the course of the hearing on the present application the company testified that it had filed with the Federal Communications Commission, since the hearing began, modified rates of depreciation on its depreciable property with the effect of reducing the annual charge to operating expenses for the company as a whole in the amount of $3,600,000. Extension of this reduction to the Connecticut division decreases by only $6,868 annually total operating expenses and taxes of $450,988 apportioned to Connecticut intrastate business (Table II) and is also insignificant in amount, in view of the conclusion arrived at below.

For the purpose of this finding and order the Commission is not therefore passing upon any of these matters.

The Company's Separation Study Applied to the Connecticut Division

The company's engineer testified that in separating intrastate operations from interstate operations in the Connecticut division he followed the Separations Manual as revised by a Committee on Telephone Regulatory Problems of the National Association of Railroad and Utilities Commissioners and the Federal Communications Commission. This manual prescribes standard procedures for separating into these two phases of commerce telephone property, revenues, and expenses. The manual (October, 1947 edition) was prepared on the station-to-station basis, that is, from the telephone instrument of the subscriber to the telephone instrument of another subscriber. Relative use was the basis for apportionment between intrastate and interstate commerce in applying the manual. The company's engineer further testified that the company had used the principles of this manual in its hearings before the New York Public Service Commission in separating intrastate and interstate commerce for that hearing. He also testified that the standards in this manual are used by all of the so-called Bell Telephone Companies in separating intrastate and interstate commerce on a statewide basis and that the company and all Bell Telephone Companies had used the manual in making separation studies in connection with division of revenue settlements and also rate cases. The manual was designed primarily for use in statewide separation of Bell System company operations, but the manual states there is no apparent reason why the basic underlying principles should not be applicable to independent companies and individual exchanges when such separations are required. In this connection the manual states that in the case of individual exchange separations additional special studies would be required in many instances. It is apparent from an examination of the manual that its application even to statewide

separations, let alone an exchange separation, is extremely intricate.

In separating the company's property on a statewide basis between intrastate and interstate commerce before the New York Public Service Commission, following the principles of the Separations Manual, a profit of 5.5 per cent resulted under the rates authorized by that Commission on a rate base for New York state determined in the same manner as in the case before the Connecticut Commission with respect to the Connecticut division. However, as shown in Tables II and III, the application of the principles of the Separations Manual to the Connecticut division results in a substantial loss under both the present rates and the proposed rates.

The two exchanges in the Connecticut division have been treated by the company in this case as constituting in effect a local and separate telephone company, because they are located in the state of Connecticut, and the company has used the manual for the purpose of separating these two exchanges from the 450 exchanges comprising the company. The company justifies this on the special studies which the company made, although the manual is silent regarding the nature of the special studies necessary to separate individual exchanges from the company as a whole. The company admits it has not applied the principles of this Separations Manual to any exchange in New York state; that if it were applied to an exchange in New York state having about the same number of telephones as the Connecticut division, it did not know whether the same results—a loss—would follow as in Connecticut. Indeed, the company conceded that if the manual were applied to exchanges in New York state there would result in some instances a loss, and in other cases a profit in the operation of the exchange. The company's engineer, testifying in this matter, stated that the principles of the Separations Manual are not applicable to an exchange as such but are perhaps applicable to a specific exchange. In explaining this inconsistency he testified that while the company does not maintain accounting records by exchanges it nevertheless maintained separate accounts for the Connecticut division so that the problem of separation was limited. His testimony shows, however, the extent to which he had to borrow from operations in New York state to complete his study for the Connecticut division and the whole record of the case, as we have shown in part in the preceding subheading, discloses that the amount of available accounting and engineering information respecting the Connecticut division as such is extremely limited and that the answers to the questions are to be found essentially in the accounting and engineering records of the company as a corporate entity operating essentially in the state of New York. Hence, the difficulty of the problem confronting the engineer and the accountant in making the special studies is readily understandable, as we have stated before. The engineer contended however, that having allocated the expenses, book cost, and revenue to the Connecticut division, he could still follow the procedures in the Separations Manual and get a thoroughly reliable split between interstate and intrastate op-

erations. If this were so, it would seem that, instead of the results being a substantial loss in operating under the new rates, there would be a profit, for another of the company's witnesses testified at one point that you can operate a small city cheaper than you can operate multiple offices, or operate a group of small cities cheaper than larger cities.

However, the stress which was laid by other witnesses in the company's case was to the contrary and that the greater the size of the communities served with their saturation of business use of the telephone, the greater the amount of revenue per station, which helps to pull up the revenues in the smaller communities with their lower proportion of business use.

The greater use which a business subscriber makes of his telephone, than does a residential subscriber, enhances the value of the service to the business subscriber, the company claims, and hence justifies a materially higher charge to the business subscriber. If this is so, it is readily understandable that the company's rate pattern with its relation to group classification and progressively higher rates, both residential and business, as the size of the group rises in the number of connected telephones, results in an over-all profit to the company, in fixing rates on a statewide basis, but results in a loss in Connecticut, which is not offered the advantage of the company's group classification.

In effect therefore the Connecticut division, merely because its two exchanges happen to be in Connecticut, rather than in New York, are asked to pay telephone charges for the same quality of service by an out-of-state telephone company as though the Connecticut division constituted a separate telephone company, rather than sharing the benefits of that service with telephone subscribers of the same company located in New York state. This is contrary to the development of the telephone industry which has been from the relative inefficiency and high cost of service of small separate telephone companies into larger business units with their greater degree of efficiency and lower costs of service. (See, for example, Public Service Commission v. Southwestern Bell Teleph. Co. [Mo 1945] 57 PUR NS 257, 303, and following.)

The Commission finds from the evidence of revenues, expenses, and investment in property in the Connecticut division and its separation into Connecticut interstate and intrastate business, as summarized above, that the same is not sufficiently trustworthy upon which to find the proposed rates reasonable, and that the company has failed to sustain the burden of proving under § 5412 of the General Statutes that the proposed rates are reasonable. The Commission must therefore resort to secondary evidence, if any rate relief is to be afforded the company under circumstances of a material increase in costs generally since the present rate schedule was filed in 1930.

The Principles Followed in Fixing Telephone Rates in New York State and Group Classification

The company's witness on rates testified that the company, in proposing the new rates for the Connecticut division, had considered a number of factors, among them the cost of service, the character of the use of service,

the desirability of approaching a reasonable rate of return and that the whole problem was one of balancing all of these factors and arriving at a judgment. He testified also that the objectives for rates in the Connecticut division were fundamentally the same objectives as the company had in developing rates for all of its exchanges in New York state. Furthermore, the policy in fixing rates in New York state on a statewide basis is to charge comparable size communities with comparable rates, and obvious recognition of the company's classification of exchanges into groups.

The local service rates of the company outside of New York city and Buffalo have been for many years on a group basis, that is, exchanges are divided into groups according to the number of telephone stations which may be called without toll charge and a uniform schedule of rates applies in all exchanges within a group. Group 1, for example, contains the smaller exchanges in which the lowest schedule of rates applies. The level of rates is progressively higher in the rate groups embracing a greater number of stations. The following table shows the grouping arrangement which was requested by the company of the New York Public Service Commission and authorized by it in its recent rate investigation:

TABLE IV

Group	Authorized by New York Commission
1	0— 1,400 stations
2	1,400— 4,000 "
3	4,000— 10,000 "
4	10,000— 20,000 "
5	20,000— 35,000 "
6	35,000— 70,000 "
7	70,000—150,000 "

The company has over 450 exchanges in New York state running from a minimum of one exchange in Group 1 to over 3,000,000 telephones in the New York Metropolitan area comprising a separate group. If Byram River exchange with its present 31,346 telephone stations were located in the state of New York it would fall into Group 5 for rate-making purposes and with the proposed extension of its local calling area to 61,096 telephones it would fall into Group 6. If the Greenwich exchange with its present 19,545 telephones were located in the state of New York it would fall into Rate Group 4, or possibly Group 5, and with the extension of its local calling area to 68,633 telephones it would fall into Group 6. There are 51 exchanges in New York state in Group 4, 11 in Group 5, 9 in Group 6, and 3 in Group 7. (Taken from information submitted by the company after the hearing by direction at the hearing which information is for convenience marked Company Exhibit XIV.) Armonk Village, which would be added to the local calling area of Byram River and Greenwich exchanges, is in Group 6, as is Port Chester, which would be added to the local calling area of the Greenwich exchange. Rye exchange, which would be added to the local calling area of the Greenwich exchange, is in Group 7, as is White Plains, which would be added to the local calling area of Byram River. Other illustrations appear in the record.

Port Chester, New York, which is contiguous to Greenwich on the east, and in Rate Group 6, enjoys rates materially lower than those proposed for Greenwich, although a company witness conceded that service condi-

tions in both communities may be substantially similar and if Greenwich, with substantially the same number of telephones, were in New York state, it, too, would be in Group 6 with Port Chester.

While rates have been fixed in New York state on a statewide basis to yield a fair return on the company's entire operations in that state, the company conceded that its earnings in some of its exchanges may be higher or lower than the over-all return and its operations may be highly profitable in some exchanges and unprofitable in others. Obviously the grouping of exchanges by sizes has the consequence, if not the purpose, of merging revenues and expenses in the group for the purpose of applying rates to the group, and the progressively higher level of rates as the size of the group increases is recognition that a higher degree of cost is encountered in providing the service.

While the company has contended in large part throughout this case that it makes no study of the cost of supplying service to a residential subscriber or to a business subscriber and that its rates in New York state have been fixed on a statewide basis, it is obvious that within the seven rate groups that exist in that state the company is either recouping its cost of supplying service to the particular group or else some groups are subsidizing other groups, a principle generally abhorrent in the fixation of rates.

Developing its purpose in group classification, the company's witness on this phase testified that the company had two objectives in establishing groups, the first being the general cost of providing the service and the other being the relative value, although denying that the objectives require that each group shall produce a certain profit. When pressed, he admitted that cost was specifically considered in fixing rates for groups, although counsel for the company claimed after the hearing that this part of the transcript was in error and requested a correction which was denied, based upon examination of the underlying stenographic notes. We stated on this subject in The Southern New England Telephone Company Case ([1947] Docket 7953) 73 PUR NS 185, 199, 200, that while group classification, integrated there also with statewide rate making, "does not take into account the actual costs of rendering services in each exchange," the company claimed in that docket "that general recognition is given to differences in costs for classes of service and for the different categories of exchanges." Here, too, the company offered testimony "that as the size of the exchange increases the complexity and cost of providing telephone communication increases out of proportion to the increase in operating revenues." (Ibid.)

The New York Telephone Company claimed also that exchanges in New York state, adjacent to the Connecticut division, which now are in the same rate group in which the Connecticut division would fall if it were a part of the company's telephone operations in New York state, are not comparable to the Connecticut division because of the variation in the ratio of business subscribers to residence subscribers in the Connecticut division. The Connecticut division, as presently constituted, has 23 per cent of its subscribers in the business

classification and 77 per cent of its subscribers in the residence classification. For convenience we show in Table V, below, these ratios for the Connecticut division and the exchanges in question, together with the rate group into which the particular exchange now falls and the rate group in which Greenwich would fall if it were in New York state:

TABLE V

Percent Station Distribution for Local Calling Areas

Exchange	Rate Group	Business	Residence	Total
Armonk Village, N. Y.	6	27	73	100
Port Chester, N. Y.	6	27	73	100
Rye, N. Y.	7	25	75	100
White Plains, N. Y.	7	24	76	100
Greenwich and Byram River, Conn.	6	23	77	100

This information, except for Greenwich, is taken from information supplied by the company after the hearing in accordance with a direction at the hearing and for convenience that information has been marked Company Exhibit XV. The proportion for Greenwich and Byram River is taken from the record.

As we have found above, it is not the proportion of business subscribers to residence subscribers which determines the rate group into which an exchange shall fall, but rather the number of connected telephones in the exchange. There are, therefore, wide variations, for the exchanges in a particular rate group, between the ratio of business to residence subscribers in the group. It will be observed further from this table that Port Chester, which enjoys a lower rate than proposed for the adjacent Connecticut division, has close to the same proportion of business to residential subcribers as Greenwich, and we have referred above to the substantial identity of the two contiguous communities in service conditions.

Another claim for distinction of telephone service conditions in the Connecticut division from exchanges generally throughout the state of New York was that 57 per cent of the business subscribers are on a message rate basis and 43 per cent on a flat rate basis as compared with 4 per cent on a message rate basis and 96 per cent on a flat rate basis in the Connecticut division. However, the present rate schedule of the New York Telephone Company, as applicable in the Byram River and Greenwich exchanges, indicates that message rate business service has not been available to business subscribers except on an extended area basis until the present time, which fact appears to account for the low percentage in Connecticut. Moreover, the proportion is for the state of New York as a whole and it is not shown what the proportion is for exchanges in Rate Group 6. Indeed, the company admits that as between exchanges in a particular rate group there would be a tendency for wide variations between flat rate and message rate ratios for exchanges in a particular rate group.

The Commission finds that these claims for distinguishing exchanges in New York state from the Connecticut division are not valid.

Discussion of Law

The facts in the preceding subhead-

ing, with respect to group rates in force in New York state and what the rates would be for the two exchanges in the Connecticut division, if they were a part of New York state, are based upon evidence presented by the company under protest at the hearing. The company contended that rates for telephone service, either in New York or Connecticut, are not admissible in evidence, or if received should be given no weight in testing the reasonableness of the rates proposed by the company or in fixing alternate rates, unless the offered rates should be shown to be fair and reasonable and comparable conditions to exist in all essential particulars and that the burden of showing comparable conditions rested upon the Commission. The company submitted a brief in support of its claims of law.

After an adjournment to consider these claims, the Commission ruled that its cross-examination and its inquiry into the rates charged by the company in New York state and the rates in force in the territory of The Southern New England Telephone Company, were proper and lawful. The Commission ruled also that the company had failed to sustain the burden of proof resting upon it under § 5412 of the General Statutes to show that the proposed rates are reasonable. The Commission further found after discussion of the company's evidence, which has been summarized in the preceding subheading, that either the company's method of determining its investment in property, revenues, and expenses, as summarized in Company's Exhibits VIII and IX (Tables II and III of this finding) was erroneous, or else, as a result of the company's operations in Connecticut being such a minute part of its total operations, the company is not conducting its service in such an efficient and economical manner as to provide subscribers in Connecticut with telephone service at as reasonable rates as the company is furnishing under like conditions in New York state.

[3] As the company rested its case, it did not ask the Commission to fix compensatory rates for its Connecticut division. On the contrary, it claimed that the proposed rates, although materially higher than those now in force in Rate Group 6 in New York, into which group Greenwich would fall if it were in New York state, would be far from compensatory and in the vernacular that the proposed level of rates represents all "that the traffic will now bear."

Ordinarily the upper limit of a rate, that it shall not exceed the value of the service to the customer, is not of importance as a matter of law because the traditional approach to the rate problem, a fair return on fair value, generally results in the proposed rate being both compensatory and sufficiently low to meet the cost of any competitive commodity or service available to the customer, and hence the resulting rate is ordinarily one "that the traffic will bear." While this upper limit is thus essentially determined by economic principles, it has a status in regulatory law as representing the legal maximum that a utility company may exact of a customer. Thus this legal maximum has been recognized from the time of Smyth v. Ames, in the following language:

"What the company is entitled to

ask is a fair return upon the value of that which it employs for the public convenience. On the other hand, what the public is entitled to demand is that no more be exacted from it for the use of a public highway than the services rendered by it are reasonably worth." Smyth v. Ames (1898) 169 US 466, 547, 42 L ed 819, 849, 18 S Ct 418.

Our Connecticut supreme court has recognized this same principle in an important case involving the fixing of rates for a public utility corporation when it says that:

"Likewise, ultimate conclusions as to the reasonableness of rates must be reached with due regard to their effect both upon the company and the public; they must not be so low as to be confiscatory *or so high as to exceed the value of the service to the consumers.* 'No satisfactory definition of reasonable, as applied to rates, applicable to each case, can be made. Each must be decided upon its own facts and upon a consideration of many varying elements.' . . . . The nature and scope of the inquiry is such that the question of what constitutes a reasonable rate is primarily a question of fact, depending largely upon the circumstances of the particular case." (Italics supplied.) New Haven v. New Haven Water Co. (1934) 118 Conn 389, 402, 5 PUR NS 319, 326, 172 Atl 767.

There can be no escape from the responsibility of the company as a public utility to charge reasonable rates and in a rate proceeding to demonstrate by a fair preponderance of the evidence that the proposed rates are reasonable. The company has failed to sustain its burden of proof (§ 5412, Connecticut General Statutes and New England Teleph. & Teleg. Co. v. New Hampshire (1949) 95 NH 353, 78 PUR NS 67, 77, 64 A2d 9).

[4–6] Since the company has failed to show that the proposed rates are reasonable, the question is posed of whether the company shall be denied rate relief, upon a general showing that it is entitled to some degree of rate relief, or shall the Commission resort to secondary evidence to provide rate relief in order that the financial integrity of the company, respecting its operations in Connecticut, shall be maintained, this being the obligation imposed upon the Commission in considering the investors' interest, as well as the customers' interest (Federal Power Commission v. Hope Nat. Gas Co. [1944] 320 US 591, 603, 88 L ed 333, 345, 51 PUR NS 193, 201, 64 S Ct 281). Hence, the issue is not comparability as between communities in considering rates in other communities, to paraphrase briefly the company's claim, but rather, in the absence of reliable primary evidence showing that the proposed rates are reasonable, what rates shall be fixed, by way of secondary evidence, to give needed rate relief.

Determination of reasonable rates by resort to secondary evidence necessarily requires consideration of the Connecticut division as a part of the corporate entity of the New York Telephone Company. It also requires consideration of the company's historic policy of pricing its services by rate groups which policy becomes, under the circumstances of this case, the most reliable measure of reasonable rates in granting rate relief for the company's Connecticut division.

It is axiomatic that customers may be grouped together for the purpose of fixing rates, where the conditions under which they are served are substantially similar with respect to the customers in the classification. The grouping of exchanges by the number of connected telephones in the exchange is merely classification of customers in the telephone industry for the purpose of fixing uniform rates within each group. (See Gallaher v. Southern New England Teleph. Co. 99 Conn 282, 289, PUR1924A 279, 121 Atl 686; and New England Teleph. & Teleg. Co. v. New Hampshire, *supra*, 78 PUR NS at p. 78.) Indeed, regarding comparability as an issue in the case for the purpose of argument, the group classification establishes the area of comparability and inasmuch as the two exchanges comprising the Connecticut division would fall into Rate Group 6, if they were a part of New York state, the rates applicable to that rate group, recently fixed on a compensatory level in that state, should be adopted as a measure of reasonable rates in affording the company needed rate relief.

This solution does justice to the company in granting it needed rate relief. At the same time it does not work an injustice upon subscribers in the Connecticut division by placing them in a separate unit for rate-making purposes merely because they happen to reside on the Connecticut side, rather than the New York side, of a common boundary.

The rates applicable under this finding within the base rate area of the Connecticut division, including the extension of the local calling area as proposed by the company, in relation to Rate Group 6 in New York state, are contained in Appendix A of this finding and are taken from the pertinent order of the New York Public Service Commission, dated May 10, 1950, 84 PUR NS 267.

[7] The increase in the minimum rate from 5 cents to 10 cents for public and semipublic telephone service, commonly called coin box telephone service, for the Connecticut division, is approved. There are 267 coin box telephones in the division. A minimum 10-cent rate has been authorized by the New York Public Service Commission within the state of New York in order that part of the increased costs of supplying telephone service shall fall upon the user of coin box telephone service. For that reason, which is also present in this case, the Commission finds that the minimum rate for coin box service should be increased from 5 cents to 10 cents, and the order below will so provide.

Order

Based upon the foregoing finding and conclusions, the Commission makes the following order:

1. The Commission denies the application of the New York Telephone Company to make effective the proposed rates and other charges for telephone service supplied to its Connecticut division which rates and charges were filed with this Commission as a part of this rate proceeding and which are contained in Company's Exhibits 10–A and 10–B in this docket.

2. In conformity with the finding and conclusions of the Commission, the New York Telephone Company is authorized to file with the Commis-

sion, for its consideration and approval, in lieu of the proposed rates and charges contained in Company's Exhibits 10–A and 10–B, the schedule of rates and charges set forth in Appendix A to be effective within the base rate area, including the extension of the local calling area, of the Byram River and Greenwich exchanges, as proposed by the company.

The company is also authorized to file with the Commission, for its consideration and approval, a schedule of rates outside of the base rate area which will conform with the Commission's finding and order in this docket.

The company is also authorized to file with the Commission, for its consideration and approval, that part of its tariff of rates and charges in Exhibits 10–A and 10–B relating to rules and regulations, message toll telephone service, and other charges, which are not in conflict with this finding and order.

The company is also authorized to file with the Commission at the same time a tariff increasing the minimum rates for public and semipublic telephone service for the Connecticut division from 5 cents to 10 cents.

No reduction in any present rate for any present class of service is contemplated by this order.

3. Upon the filing with the Commission of rates and telephone charges in conformity with numbered paragraph 2 of this order, and approval thereof by the Commission, the same will be permitted to go into force and effect in the Connecticut division of the company.

NEW YORK TELEPHONE COMPANY
Docket No. 8409

Appendix A
(Base Rate Areas)

	Byram River			Greenwich		
	Present	Proposed*	Allowed*	Present	Proposed*	Allowed*
Business Service						
Individual Flat Rate	$8.00	$12.00	$11.50	$7.00	$12.00	$11.50
Message Rate (individual line)	—	6.50	6.00[1]	—	6.50	6.00[1]
2-Party	6.25	(–Discontinued–)		5.75	(–Discontinued–)	
Residential Service						
Individual Flat Rate	$3.75	$5.00	$4.50	$3.50	$5.00	$4.50
2-Party	3.25	4.25	3.75	3.00	4.25	3.75
4-Party	2.75	3.75	3.25	2.50	3.75	3.25

Note: All rates are monthly, exclusive of Federal Excise Tax.
* Includes extension of the local calling area as proposed by the company.
[1] Includes 75 local messages per month.
Additional Local Message Unit Charges
First 300 @ 5¢
Next 300 @ 4½¢
Next 300 @ 4¢
All Others @ 3½¢

We hereby direct that notice of the foregoing be given by the secretary of this Commission by forwarding true and correct copies of this document to parties in interest, and due return make.

KENTUCKY PUBLIC SERVICE COMMISSION

Re East Kentucky Rural Electric Co-operative Corporation

Case No. 2013
December 7, 1950

APPLICATION *by corporation consisting of rural electric distribution co-operatives for authority to construct, operate, and maintain generating and transmission system to supply electricity to its members; granted.*

Monopoly and competition, § 32 — What constitutes duplication — Electric companies — Parallel transmission lines.

1. The mere fact that a transmission line geographically parallels another transmission line does not necessarily mean that construction of the second line would be a duplication, since if a transmission line is presently overloaded and cannot adequately carry the load required by distributing utilities, the construction of a parallel line would not be a duplication which could not be approved by the Commission, p. 22.

Monopoly and competition, § 54.1 — Electric transmission lines — Inadequacy of existing service.

2. A corporation consisting of rural electric distribution co-operatives was authorized to construct, operate, and maintain a generating and transmission system in an area served by privately owned and operated electric companies for the purpose of supplying its members with electric energy where the existing service was not adequate, where the existing companies were required to purchase power from outside the state, where the proposed construction would not duplicate present generating and transmission facilities, and where the proposed facilities, when constructed, would be able to deliver energy to the co-operatives at a cost at least as low as their present purchase cost, p. 25.

By the COMMISSSON: On the 18th day of January, 1950, the applicant, East Kentucky Rural Electric Co-operative Corporation, organized under KRS Chap 279, and whose membership consists of eighteen rural electric distribution co-operatives, filed its duly verified application wherein it requested a certificate of convenience and necessity authorizing it to construct, operate, and maintain a generating and transmission system for the purpose of supplying its members with electric energy. The members of the applicant co-operative corporation are presently purchasing electric energy wholesale from the Kentucky Utilities Company, the Kentucky-West Virginia Power Company, the Louisville Gas and Electric Company, and The Union Light, Heat and Power Company. The first named, Kentucky

Utilities Company, supplies the greater part of the electrical energy so purchased.

The application set out that the necessity for the construction, operation, and maintenance of generating facilities was brought about by the extreme shortage of electric energy resulting from inadequate generation and/or transmission facilities of the aforementioned suppliers. The application further stated that as a result of the shortage of generation and/or transmission facilities, that applicant's suppliers were not rendering adequate service in that there were frequent outages of current and unwarranted and extreme voltage fluctuations. The application further stated that if it be permitted to construct the proposed generating and transmission facilities it could furnish to its members dependable power at rates lower than those now being paid by the members with improved service.

The applicant also requested authority to borrow the sum of $12,265,000 from the United States of America to finance the proposed construction.

Following notice by the Commission to the interested parties, intervening petitions and answers were filed by the Kentucky Utilities Company, the Louisville Gas and Electric Company, and The Union Light, Heat and Power Company. The intervening petitions and answers denied all material allegations of the application and further alleged that the construction of the proposed system would constitute an unnecessary duplication of generating and transmission facilities now owned by the utilities. This application was duly set for hearing and numerous days were consumed in hearing the evidence of the applicant and of the protesting utility companies.

KRS Chap 278.020 (1) provides that no person shall begin the construction of facilities proposed by the applicant herein until such person has obtained from the Public Service Commission "a certificate that public convenience and necessity require such construction."

In order to determine whether or not public convenience and necessity require the proposed construction, it is necessary to determine from the evidence introduced herein the quality and character of the service rendered to the applicant members in the past and the capabilities and probabilities of the future together wth the economic feasibility of the proposed construction.

Although four private utilities presently supply energy to the eighteen RECC's, Kentucky Utilities Company supplies the total energy for thirteen of the members and a part to two of the members.

The applicant in support of its charge that the electric energy received by the member co-operative was subject to extreme fluctuations at some of their substations introduced testimony of electrical engineers and various representatives of the member co-operatives.

The testimony indicated that in many instances the variation in voltage was so extreme that it could not be corrected by regulators. This condition results in inadequate service to the ultimate consumers of the co-operatives and in damage and destruction to appliances if the voltage variations

are extreme. There was also testimony to the effect that the cause of the voltage fluctuations was the overloading of the transmission lines of the utilities companies. The applicant also supported its charges of poor voltage regulation by charts made by General Electric recording voltage meters which indicated the variation in voltage in the stations where they were installed over different periods of time. Additional charts were filed pending the hearing which indicated that even at that late date the voltage regulation was substandard.

The applicant also introduced evidence substantiating the statement made in the application that some outages occurred in the past, some for as long as five and one-half hours. It was further shown that in some instances there has been long delay in supplying power to the RECC's.

The record also discloses that the present generating facilities of the protesting utilities are not sufficient for the present load requirements of the utilities and it is necessary presently, and will be in the near future, to purchase power from other sources to meet the load requirements. The record indicates that presently the energy supplied by Kentucky Utilities to all of the RECC's is from 6 to 7 per cent of their total sales; Kentucky-West Virginia Power Company 1.6 per cent; of Louisville Gas and Electric .4 per cent; and of The Union Light, Heat and Power Company, 2 per cent. The record discloses that if all of the energy supplied to the RECC's was obtained by them from other sources there would still be a deficiency in the generating capacity of the suppliers.

The applicant introduced evidence of competent, qualified engineers which presented in detail the proposed construction plans for the generating and transmission plants. This application is to construct two 20,000 kilowatt units to serve 43 load centers of 13 RECC's which would necessitate the construction of 597 miles of transmission line. The estimated cost of this construction was $12,265,000. The ultimate plan visualizes that this be increased by the construction of two 40,000 kilowatt units to serve 76 load centers and the construction of 1,587 miles of transmission line by the end of the year, 1959, at a total estimated cost of $28,172,000. The feasibility or necessity of such expansion can only be determined in future applications. The applicant also proposed to purchase, operate, and maintain all of the existing transmission lines now owned by the member RECC's and deliver the energy to the load centers. The proposed plan included provision for 2-way feed to each load center. The record discloses that the transmission lines now owned by the member RECC's together with those which must be constructed represent an investment of $2,773,000. The applicant introduced testimony to indicate that the savings to the RECC's on purchased power, not including the savings occasioned by the applicant, owning, operating, and maintaining the transmission lines, would be as follows:

1952 (first year)	$188,400.00
1953	672,500.00
1954	966,500.00
1955	917,600.00
1956	1,144,400.00
1957	1,354,700.00
1958	1,584,600.00
1959	1,801,800.00

or a total savings for the period from 1952 to 1959, inclusive, of $8,630,500. Testimony indicated that the increase in savings would be occasioned by the estimated load growth which was arrived at by a detailed survey made by the eighteen member cooperatives. There is testimony that there is a possibility of considerable further savings under an exchange of power agreement with TVA resulting from the Summershade connection.

The RECC's are initially distributing organizations and not transmission companies. However, the record discloses that the RECC's have been required to construct, operate, and maintain transmission facilities from their load centers to points of contact with utility transmission lines. Witnesses for the applicant testified that if it were necessary to construct 28 miles of transmission line to deliver the energy to their load centers that 1.3 mills must be added to the cost of power for the expense of constructing, operating, and maintaining the transmission lines. This means that the actual cost of power to the RECC's is in part determined by the proximity to the transmission lines of the suppliers and therefore is not uniform to all of the RECC's.

Of necessity both the applicant and the protesting utilities in support of their case presented the opinion of experts in their field. The witnesses introduced by both the applicant and the protesting utilities were competent and qualified men and the Commission has no doubt whatsoever of the sincerity of all those who testified. However, on some phases of the construction costs, operating and maintenance costs, and cost of power delivered to the co-operatives by the generating and transmission system proposed, the opinions were far apart. The Commission must determine this cause notwithstanding extreme differences of opinions.

The witnesses for the applicant and for the protesting utilities did not differ greatly in the cost of constructing the generating plant. There were conflicting opinions as to the necessity of cooling towers in the initial stage of construction and conflicting opinions upon the cost of constructing such cooling towers if it were finally determined that they were necessary. However, the applicant's witnesses testified that in the event cooling towers were necessary that ample allowances were made in the contingencies to construct the same. They supported their estimate of the cost of construction by the actual cost of cooling towers presently being constructed and for which all contracts have been let. The actual costs were less than the estimated costs of applicant's witnesses. The contingency item presented in applicant's estimated cost of construction was much greater than the actual cost of similar cooling towers presently being constructed.

[1] The protesting utilities introduced much evidence to substantiate their contention that the proposed transmission facilities would duplicate the transmission facilities of the utilities, particularly Kentucky Utilities, and therefore the Commission should not permit the same to be constructed. There were numerous maps introduced showing that the proposed transmission lines do parallel many of the existing lines now owned, operated, and maintained by the Ken-

tucky Utilities Company. However, the mere fact that a transmission line geographically parallels another transmission line does not necessarily mean that the construction of the second line would be a duplication. It is apparent that if a transmission line is presently overloaded and cannot adequately carry the load required by the co-operatives, the construction of another line parallel with the first would not be a duplication. It is also apparent that if a 69-kilovolt line is required, that the construction of same parallel to a 33-kilovolt line would not necessarily be a duplication. It also follows that a 69-kilovolt line would not duplicate a 132-kilovolt line since the testimony indicated that the cost of tapping such a line for RECC purposes would be prohibitive. The evidence indicated that the transmission lines of the utilities were primarily constructed to take care of their own loads and load centers and were never designed for the purpose of meeting the requirements of the RECC's. The evidence disclosed that the Kentucky Utilities Company presently proposed the construction of 33 different transmission lines. With the exception of two of these lines which may be built even if the proposed transmission lines are constructed by East Kentucky, all of the others, or 31, would be constructed regardless of whether or not the proposed transmission lines of East Kentucky are constructed. The Kentucky Utilities Company proposes to construct 25 additional transmission lines in the years 1954 through 1959, and the witnesses stated that all 25 of these lines would be constructed regardless of whether or not East Kentucky constructed its proposed transmission facilities. There is evidence that the present transmission system of the Kentucky Utilities is overloaded and if East Kentucky's proposed transmission lines are constructed and thus relieve the Kentucky Utilities' transmission lines of this burden, they will still be overloaded due to the expected load growth of Kentucky Utilities.

The testimony presented to the Commission showed the great advantage of having power delivered direct to the load centers of the co-operatives. The proposed transmission facilities of East Kentucky would accomplish this end. The utility companies have not only failed to deliver their energy direct to all of the load centers in the past but the testimony indicated that they absolutely refused, in some instances, to construct the necessary transmission lines to deliver the energy to the load centers.

The evidence also indicated the great advantage and desirability of having 2-way feeds at each load center. The proposed construction of East Kentucky would ultimately provide for a dual, treble, or quadruple feed to each and every substation. This transmission system, if constructed, would greatly reduce the hazards of power failure due to outages. Also, if the energy is delivered direct to the load centers by the transmission system, there would be a great savings to the co-operatives in that they would be relieved of the actual cost of maintenance and depreciation and other incidental costs connected with transmission lines and, in addition, they would be relieved of the line loss on these transmission lines. The proposed construction by the Ken-

tucky Utilities of transmission facilities, as shown by their evidence, would leave 40 per cent of the 76 proposed load centers by the year 1959 without 2-way feed. The record conclusively shows that if the proposed transmission facilities were constructed, they would not replace a single line now owned, operated, and maintained by the utilities. All their transmission lines would still be necessary and useful in carrying the utilities' own loads.

The Commission is of the opinion that the proposed construction of the transmission facilities as applied for is desirable and advantageous to the cooperatives and does not duplicate or replace the transmission facilities of the utilities.

The experts for the applicant and for the protesting utilities were far apart upon the cost of constructing the proposed transmission facilities. However, the applicant in support of its estimated cost of construction introduced evidence of the actual cost of construction of similar lines constructed pending the hearing in this matter. This disclosed construction costs below the estimate made by the engineers for the applicant. The Commission is of the opinion in view of all the evidence, that applicant's estimates are reasonable.

The witnesses for the applicant and for the protesting utilities also differed considerably in their opinions on the operating expenses of the proposed generating plant. Here again, the applicant in supporting its estimates introduced the actual operating expenses of all new plants listed by the Federal Power Commission as beginning operation in 1948. It was not disputed that the operating expense and cost of producing energy in a modern, efficient plant is far less than that of an older and less efficient plant. The average operating expenses per kilowatt of all plants beginning operation in 1948 were less per kilowatt than the estimated operating expense of the engineers for the applicant.

The protesting utilities also introduced evidence that the proposed generating plant did not make adequate provision for reserve capacity. Reserved capacity, as construed by both the engineers for the applicant and the protesting utilities, is sufficient power to supply its needs with the largest generating unit out. However, the letter of intention from the TVA, dated February 9, 1950, provided as follows: ". . . We would also be willing to enter into arrangements for reciprocal standby in emergency . . ."

The evidence also discloses that the Kentucky Utilities has found it necessary to purchase approximately 25 per cent of the energy sold by it from sources out of the state of Kentucky. The record discloses that the cost of this purchased power is 7.90 mills as compared to the cost of energy produced by Kentucky Utilities of 5.94 mills. Although Kentucky Utilities proposes to construct 1.3 times as much generating capacity in the next eight years as they have constructed in the past forty years, it will still be necessary for them to purchase additional power to provide for their own estimated growth. There is nothing in this record to indicate that therm power cannot be produced in Kentucky as effi-

ciently and at a cost at least as low as power produced in other localities.

[2] Since the applicant has shown to the satisfaction of the Commission that the service now rendered by the protesting utilities is not adequate and, since the record discloses that the utilities are now required and will be required under their proposed construction program to purchase power from without the state, the Commission is of the opinion that they have adequately shown that public convenience and necessity require the certificate be granted to construct the generating and transmission facilities as applied for in the application.

The Commission is therefore of the opinion and finds:

(1) That public convenience and necessity require the construction, operation, and maintenance of the proposed generating and transmission facilities applied for in the application.

(2) That the proposed construction does not duplicate present generating and transmission facilities owned by the protesting utilities.

(3) That the proposed generating and transmission facilities, when constructed, can deliver energy to the member RECC's at a cost at least as low as their present purchase cost.

An order will be entered granting the certificate to construct the proposed generating and transmission facilities as applied for and to borrow from the United States of America, through the Administrator of the Rural Electrification Administration, a sum in the principal amount of $12,265,000 to finance the said construction.

NEW JERSEY BOARD OF PUBLIC UTILITY COMMISSIONERS

Samuel Vacchiano et al.

v.

New Jersey Bell Telephone Company

Docket No. 5280
December 13, 1950

COMPLAINT *of former subscribers against discontinuance of telephone service; dismissed.*

Service, § 134 — Denial of telephone service upon government request — Validity of company regulation.

1. A telephone company regulation providing that facilities and services may be terminated upon objection made by or on behalf of any governmental authority is not arbitrary, but, on the contrary, is reasonable, p. 26.

Service, § 134 — Denial for gambling use — Rights of wife of convicted gambler.

2. The fact that the wife of a former telephone subscriber convicted of bookmaking had at no time been charged with using the telephone at their

residence in furtherance of an illegal purpose does not require the telephone company to restore service to her, since the apartment to which service was being rendered was occupied by her as well as her husband and it was an illegal use of the premises and of the former telephone installation at the apartment by her husband which led to his conviction of bookmaking, p. 27.

Service, § 134 — Restoration of telephone service — Denial for gambling — Consent of county prosecutor.

3. The Commission will not require a telephone company to restore service to premises from which it has been withdrawn after the occupant's conviction of bookmaking where the county prosecutor refuses to consent to such restoration, since it is not the function of the Commission to nullify the action of a law enforcement officer in fulfilment of his duties in crime prevention, p. 27.

APPEARANCES: Max M. Barr, for the complainants; A. J. Bitting, for the respondent.

By the COMMISSION: Samuel Vacchiano and Mary Vacchiano, husband and wife, residing at 409 Cookman avenue, in the city of Asbury Park, filed a complaint alleging that the respondent installed two telephones at their residence; that Samuel Vacchiano was convicted of bookmaking; that the respondent "arbitrarily and without cause," discontinued both services and refuses to restore the same; and petitioned the Board to order the respondent to install a pay station in their residence.

The respondent answering the complaint alleged that the complainants' telephone services, Asbury Park 2–5719, the customer to which was Mary Vacchiano; Asbury Park 2–9335, a semipublic telephone, the customer to which was Sam Vacchiano, were disconnected by request of the prosecutor of the pleas of Monmouth county, who had raided the complainants' "location" for alleged bookmaking; that on July 11, 1950, Mrs. Vacchiano applied for the installation of one semipublic telephone at the Cookman avenue residence; that she was informed respondent could not accept her application unless and until she obtained a letter from the prosecutor of the pleas to the effect that he has no objection to its installation, and that respondent has not received such a letter.

[1] The respondent in its answer asserted that under its tariff filed with the Board it had the right, under the circumstances stated, to discontinue the service and not to reconnect the same unless the prosecutor indicated that he had no objection to reinstallation of service.

The provision of respondent's tariff referred to in its answer is as follows: ". . . facilities and services may be terminated . . . upon objection to their continuance made by or on behalf of any governmental authority."

A hearing was held on the issues joined by complaint and answer. The facts were stipulated.

From the stipulation it appears, among other things, that:

Individual line flat rate business service under the number, Asbury Park 2–5719, was connected at 409 Cookman avenue, Asbury Park, on December 5, 1946, in the name of Mary Vacchiano.

Semipublic coin box service under

the number Asbury Park 2–9335 was connected at the same place on September 12, 1947, in the name of Samuel Vacchiano, listed as "Vacchiano, Sam/Rooms."

As the result of a raid made on August 16, 1948, by the county prosecutor's staff and the Asbury Park Police Department, the prosecutor requested that these telephone services be immediately disconnected by the respondent.

The services were disconnected as requested by the prosecutor.

Samuel Vacchiano was convicted of bookmaking as the result of the raid and sentenced from one to two years in New Jersey State Prison, sentence suspended and fined $1,000 and placed on two years' probation.

Mary Vacchiano "was neither arrested or convicted."

Complainants requested respondent to restore service for either of them and were informed that the request could not be granted unless and until the prosecutor indicated that he had no objection to restoration of the service.

Complainants have attempted to obtain such indication by the prosecutor "without result."

The respondent moved that the complaint be dismissed and that the relief prayed be denied on the stipulated facts. The respondent rested the motion on the decision of the Board in the De Luisa Case, March 23, 1949, Docket No. 4207, 78 PUR NS 22.

In that case, the Board found as it had in an earlier case that the regulation in respondent's tariff that facilities and services may be terminated upon objection made by or on behalf of any governmental authority was not arbitrary and, on the contrary, was reasonable.

The reasons leading to such finding are fully set out in the Board's decision in the De Luisa Case, *supra*. To reiterate them would serve no useful purpose here.

[2] The complainant attempted to distinguish the instant case from the De Luisa Case. He stressed the fact that Mrs. Vacchiano had at no time been charged with using the telephones at the Vacchiano apartment in furtherance of an illegal purpose. While that is the fact, yet the apartment to which service is requested to be restored is occupied by her as well as her husband, an illegal use of the premises and of the former telephone installation at the apartment by her husband led to his conviction of bookmaking.

The attorney for complainants further stressed the time that had passed since the husband's conviction and also the inability of Mrs. Vacchiano who has a lease for the operation of a 20-room rooming house at the premises of which the Vacchiano apartment constitutes a part, to properly maintain a rooming house without telephone service.

[3] It may be assumed that the facts so stressed have also been called to the attention of the prosecutor in connection with complainants' effort to obtain withdrawal by the prosecutor of his objection to reinstallation of service. The prosecutor's objection has not, however, been withdrawn.

The attorney for complainants pointed out that in the De Luisa Case the prosecutor laid before the Board "the facts on which he acted in requesting a discontinuance of the serv-

ice" and that in the instant case, the prosecutor did not do so.

The Board did not rest its decision in the De Luisa Case upon the facts laid before it by the prosecutor. The Board specifically stated that *because of lack of jurisdiction* it did not pass upon the facts and circumstances that led the prosecutor to request the discontinuance of the service and to his refusal to consent to its being restored.

In the instant case, the conviction of Mr. Vacchiano for bookmaking upon the premises does appear to justify completely the prosecutor's previous request that telephone service to the premises be discontinued. The Board must assume that the prosecutor's refusal to grant consent to restore service accords with his duties as a law enforcement official. It is not the function of the Board to nullify the action of a law enforcement officer in fulfilment of his duties in crime prevention.

For the reasons stated the complaint herein is dismissed and the relief prayed is denied.

INDIANA PUBLIC SERVICE COMMISSION

Re Rosedale Mutual Telephone Company of Rosedale

No. 22435
December 7, 1950

PETITION *by mutual telephone company for authority to increase rates; approved.*

Discrimination, § 74 — Concession to directors — Free telephone service.

A mutual telephone company was ordered to discontinue the practice of providing free telephone service to members of its board of directors in lieu of directors' fees.

APPEARANCES: James Hanner, Attorney at law, Rockville, for petitioner; Lloyd C. Wampler, Assistant Public Counsellor, for the public.

By the COMMISSION: This is a petition for a rate increase, filed with the Commission on September 5, 1950, by the Rosedale Mutual Telephone Company of Rosedale, Indiana, to increase its exchange rates, at its exchanges in Rosedale and Bridgeton and rural territory adjacent thereto in Parke and Vigo counties, Indiana, which are the only exchanges owned by the petitioner.

Pursuant to and in accordance with the provisions of the Public Service Commission Act (Chap 76, Acts of 1913, as amended; Burns' 54—102, et seq.), and upon due notice, a public hearing was held in the rooms of the

Commission, on November 20, 1950, and concluded that same date. At the hearing, opportunity was afforded to protest or otherwise oppose the approval of an increase in rates. No motions to intervene and no protests and objections have been filed.

Witnesses on behalf of petitioner and an accountant and an engineer from the Commission's staff testified and documentary exhibits were received in evidence.

Findings and Conclusions

The Commission, having heard testimony under oath, examined the exhibits duly received in evidence, and being duly advised by counsel, now finds:

1. That Rosedale Mutual Telephone Company of Rosedale, Indiana, is an Indiana Corporation and a public utility rendering telephone service in and around the communities of Rosedale and Bridgeton in Parke and Vigo counties, Indiana, and is subject to the jurisdiction of the Public Service Commission of Indiana.

2. That notice of hearing was given by one publication in the Rockville Tribune on November 2, 1950, and in the Montezuma Enterprise on the same date, both being newspapers of general circulation published in Parke county; that patrons and customers of petitioner reside in said county; that the secretary of the Commission mailed notice of hearing to persons involved and to representatives of municipalities affected.

3. That the exchange rates now being charged patrons and customers of petitioners are insufficient, and it is now determined that the rates which petitioner has set out in its petition, and which are set out in Appendix A [omitted herein], attached hereto and made a part hereof, are just and reasonable, and should be imposed, observed, and followed in the future.

4. That the members of the board of directors pay nothing for their telephones at their residences, and receive free telephone service in lieu of directors' fees.

It is therefore *ordered* by the Public Service Commission of Indiana that the schedule of rates set out in Appendix A [omitted herein] is approved and may be charged all patrons and customers of the Rosedale Mutual Telephone Company of Rosedale, Indiana.

It is *further ordered* that the Rosedale Mutual Telephone Company of Rosedale, Indiana, cease its practice of providing free service to the members of its board of directors.

It is *further ordered* that the Rosedale Mutual Telephone Company of Rosedale, Indiana, shall file the schedule of rates as set out in Appendix A [omitted herein] of this order with the tariff department of this Commission.

It is *further ordered* that the Rosedale Mutual Telephone Company of Rosedale, Indiana, pay into the treasury of the state of Indiana through the secretary of this Commission, the following amount, as itemized herewith:

Accounting cost	$61.62
Engineering cost	66.66
Advertising cost	7.20
Total	$135.48

NEW YORK SUPREME COURT, APPELLATE DIVISION, SECOND DEPARTMENT

Movietime, Incorporated

v.

New York Telephone Company

— App Div —, 101 NYS2d 71
November 27, 1950

APPEAL *from Supreme Court order directing telephone company to restore some service to corporation; reversed.*

Service, § 134 — Restoration of telephone after denial for gambling — Related enterprises.

A telephone company will not be required to restore service to a corporation ostensibly in the business of supplying information to the public concerning motion pictures running at various theaters where it appears that the corporation has sublet part of its premises to another corporation which provides bookmakers with race track information for gambling purposes, that the two corporations are closely related, that the service to bookmakers is the dominant enterprise, that the business of supplying motion picture patrons is actually profitless, and that the officers of the movie corporation created the race track information corporation and received substantial sums from it and were fully aware of the service which it provided to bookmakers.

APPEARANCES: Jordan R. Bassett, New York city, for appellant; Harry Heller, Brooklyn, for respondent; Alfred Weinstein, New York city, John P. McGrath, Corporation Counsel, Seymour B. Quel and Murray Rudman, all of New York city, on brief, for Police Commissioner of city of New York amicus curiæ.

Before Carswell, Acting PJ., and Johnston, Adel, Wenzel, and MacCrate, JJ.

By the COURT: In a proceeding instituted pursuant to Art 78, Civil Practice Act, order confirming report of Official Referee and restoring, on condition, telephone service to respondent, reversed on the law and the facts, with $50 costs and disbursements, and the petition dismissed, without costs.

The following findings are made: The telephone facilities furnished to respondent were being used to disseminate racing information to bookmakers. The messages recorded by the police officers show that to be the nature and purpose of the service and that those availing themselves of it were bookmakers. This proof is supported, among other evidence, by the number and timing of calls from those whose telephones since have been disconnected; the sums of money paid by subscribers for the service; the un-

usual equipment being used and that applied for.

This service to bookmakers, by means of which the entire rent and telephone bill of the suite occupied by respondent was paid, is the dominant one for which the telephone facilities of respondent were used, as distinguished from the dwindling and profitless venture of supplying information with respect to motion pictures to prospective patrons of theaters.

The respondent, through its officers, was well aware of the service afforded to bookmakers by means of the equipment furnished to it by appellant, even though it be assumed that such service was conducted through the medium of a separate and independent corporation, Rite Way News, Inc. The president, Polinger, and treasurer, Israel, of respondent, were instrumental in creating Rite Way News, Inc., and its predecessor, and are among its stockholders and officers or former officers. Polinger received $12,500 a year from Rite Way News, Inc. He has made repeated efforts, on the letterheads of respondent, in addition to other methods, to obtain from appellant added telephone facilities suitable for the purpose of broadcasting racing information to bookmakers. He has made use of such equipment, in conjunction with that furnished to respondent by appellant, for the purpose of facilitating the service to bookmakers.

We conclude that respondent has not shown a clear legal right to the relief it seeks.

Findings inconsistent with the foregoing are reversed.

Carswell, Acting PJ., and Johnston, Adel, and Wenzel, JJ., concur.

MacCrate, J., not voting.

PENNSYLVANIA PUBLIC UTILITY COMMISSION

Re City of Bradford

Application Docket No. 76181
December 11, 1950

APPLICATION *by city for authority to transport, as a common carrier, persons on schedule on a specified route between the city and an airport; denied.*

Certificates of convenience and necessity, § 159 — Scope of proceeding — Inquiry as to applicant's powers.

1. The Commission, in passing upon an application for authority to operate as a common carrier, must inquire as to the rights or powers of the applicant to engage in such operation, p. 32.

Municipalities, § 7 — Power to act as common carrier.

2. A third-class city, granted no right or power to operate motor vehicles for the transportation of the public under The Third Class City Law, does

not have the right or power to transport, as a common carrier, persons for hire between points within the commonwealth, p. 32.

Municipalities, § 3 — Statutory powers.

3. Any reasonable doubt as to the existence of the power of a city under the statute granting municipal powers is resolved against its existence, p. 32.

By the COMMISSION: This matter comes before us upon application of the city of Bradford, McKean county, Pennsylvania, for the beginning of the right to transport, as a common carrier, persons on schedule on a specified route between the city of Bradford and Bradford-McKean County Airport located in Lafayette township, all in McKean county, Pennsylvania.

[1–3] Applicant's right or power to engage in the proposed activities is preliminarily before us: Pittsburgh R. Co. v. Public Service Commission (1934) 115 Pa Super Ct 58, 6 PUR NS 369, 174 Atl 670. The superior court, in its opinion, pointed out that in passing on applications or complaints, as the case may be, as to duties, liabilities, powers, and limitations of powers of a public service company or municipal corporation, inquiry must be made by the Commission as to the rights or powers of the company to do or not to do the thing applied for or complained about. The city of Bradford is a third-class city. There is no inherent right or power in a city of the third class to operate motor vehicles for the transportation of the public, and under "The Third Class City Law," Act of June 23 1931, P. L. 932 (53 PS § 12198–101 et seq.), we find that there is no definite grant of the right to provide a public transportation service. Any fair, reasonable doubt as to the existence of the power is resolved by the courts against its existence, and there being no definite grant of the right in "Third Class City Law," *supra,* none exists.

After full consideration of the matters and things involved, we find and determine that the city of Bradford, under "The Third Class City Law," *supra,* does not have the right or power to transport, as a common carrier, persons for hire, between points within this commonwealth. Under the circumstances, we need not consider whether the proposed service would be necessary or proper for the service, accommodation, convenience, or safety of the public; therefore,

It is *ordered:* That approval of the application of the city of Bradford, McKean county, Pennsylvania, for the beginning of the right to operate busses, as a common carrier, for the transportation of persons, at Application Docket No. 76181, Folder 1, be and is hereby denied.

Industrial Progress

A digest of information on new construction by privately managed utilities; similar information relating to government owned utilities; news concerning products, supplies and services offered by manufacturers; also notices of changes in personnel.

Connecticut Power Plans $5,000,000 Program

THE CONNECTICUT POWER COMPANY in its annual report to stockholders, made public recently, announced construction plans calling for the expenditures of about $5,000,000. About $4,000,000 will be spent on additional electric distribution and transmission facilities, provided government restrictions on material do not interfere, and about $1,000,000 to change-over to natural gas in Torrington and Stamford.

The record sales of electricity reported for the year are 16% greater than 1949 sales and more than double the sales of ten years ago.

B-3 Series of Dodge Trucks Claim 50 New Features

INCREASED power, new styling, better brakes, improved steering for easier handling, more driver comfort, and newly designed shock absorbers are among more than 50 new features providing faster, safer and more economical hauling of larger payloads in the new B-3 Series of Dodge "Job-Rated" trucks.

L. L. Colbert, president of Chrysler Corporation and president of its Dodge Division, announced that horsepower increases in some of the eight engines powering the new Dodge truck line range as high as 20 per cent. Gross vehicle weight ratings in the new trucks range from 4,250 to 40,000 pounds, and gross combination weight ratings range up to 60,000 pounds.

Higher governor settings, redesigned fuel pumps, "hotter" spark plugs with improved moisture-proofing, larger-capacity generators, a new high-torque starting motor, and more efficient cooling systems are among engine improvements which provide the new line with greater power and economy.

Booklet on Remote Control Dictation

A NEW 12-page, two-color booklet released by Thomas A. Edison, Incorporated, describes the Company's new "Televoice" system for remote control dictation.

Entitled " . . . a line on Televoice," the booklet describes the entire system and explains its advantages. The Edison Televoice system consists of one to twenty telephone-like dictating stations wired to a central recording instrument, the Edison TeleVoicewriter.

The booklet points out that the Televoice system cuts dictation costs to the bone, bringing the cost per dictator served to an average one-third of the cost of individual dictating machines. By sharing Televoice stations dictators can even use instrument dictation for as low as one tenth the cost of an individual machine.

The booklet may be obtained from Thomas A. Edison, Incorporated, 511 Lakeside avenue, West Orange, New Jersey.

Fundamentals of A-C Metering Covered in G-E Manual

A NEW Manual of Watthour Meters which comprehensively covers the fundamentals of alternating-current metering has been announced by the General Electric Company's meter and instrument divisions.

Fully illustrated with charts, diagrams, and photos, the 40-page brochure shows how electric energy is measured; describes the operating principles of alternating-current watthour meters; and explains the techniques involved in the use, the testing, and maintenance of meters.

A compendium of information on a-c metering, the brochure can be used as a reference in the meter schools of power companies as an aid in teaching proper application and maintenance of a-c watthour meters.

New Plastic Insulator Pole for Tree Trimming Announced

THE J. B. SEBRELL CORPORATION, 300 South Los Angeles street, Los Angeles 13, California, manufacturers of pruning poles, tree trimmers, and light weight sectional aluminum poles, has announced a new development in tree pruning equipment, the insulator pole. It is a plastic section of pole 4 feet long, 1¼ inches in diameter, and is the result of years of experimentation.

The manufacturer claims that the insulator pole is many times safer than wood around power lines, that it will not splinter, crack, chip, or break under normal usage. Its weight is only one-third that of wooden poles.

The J. B. Sebrell Corporation has manufactured light weight, sectional aluminum and

(*Continued on Page 34*)

magnesium poles for years. These poles may be joined together to form poles 60 feet long, yet can be broken down into twelve 5-foot sections and thrown in the back of a car.

The insulator poles may be joined to aluminum or wooden poles or they may be joined together by using a special sleeve aluminum connecting unit. Poles of this type are almost electrocution-proof under normal conditions, as the special plastic material of which they are made has been proved to be one of the best insulators obtainable.

A free illustrated booklet on "How NOT to Prune Trees," pointing out different common mistakes, as well as the proper pruning technique will be mailed upon request. Illustrated in this booklet are the latest improved pruning tools manufactured by the J. B. Sebrell Corporation.

Connectors and Terminals Listed In New Bulletin

PRESSURE terminals and connectors for every type of application on all wire sizes from No. 26 through 250 MCM are listed in convenient, easy-to-find form in the new 40-page Sta-Kon Bulletin No. 61, recently issued by The Thomas & Betts Company.

The pages listing specific types of StaKon connectors and terminals give complete dimensions in simplified tabular arrangement, along with full information on Underwriters' Laboratories and Armed Forces approvals. Mechanical drawings and information on type of installing tools are included.

Other pages give full details on the installation tools themselves, as well as a brief listing of other T&B products. An illustrated table of contents simplifies the task of locating data on a particular type of terminal.

Copies of the bulletin are available on request on company letterhead from The Thomas & Betts Co., Elizabeth 1, New Jersey.

White Forms Emergency Corps To Keep Vehicles Rolling

THE WHITE MOTOR COMPANY puts its service and parts operations on a mobilized basis to keep White trucks and busses rolling during the national emergency. The formation of an Emergency Service Corps was announced recently by J. N. Bauman, vice president of White, and the nationwide truck and bus conservation and parts availability program has already been launched among the company's more than 500 outlets.

The new ten-point E.S.C. program provides a systematic plan to keep available White parts on hand in localities where they actually are needed. The first phase calls for a registering of all White equipment in service throughout the United States. New Whites now being produced bear an E.S.C. "dogtag" listing serial and model numbers of chassis, engine, transmission, axles and other major parts and assemblies. Tags are being assigned to all trucks

(*Continued on Page 36*)

and busses now in service through the registration plan now in progress through the White field organization.

All this parts information plus other salient facts about the operation of each White now in service will be cataloged and an inventory control system established at the Cleveland plant of White and integrated with all the branches, distributors, dealers, and service stations throughout the country.

This service requirement analysis showing location of truck equipment by serial number and model number, its age and estimates of parts needs and service labor requirement, is the backbone of the system which will make possible a much better projection of parts requirements for scheduling and distribution.

It will project needs and permit White to plan its parts requirements to obtain sufficient quantities of needed materials and locate it where needs are bound to develop.

In addition to parts needs, the labor requirements beyond what the truck operator or White service headquarters has available can also be projected and steps taken ahead of time to provide necessary facilities and manpower.

Piping Engineer's Dimensional Data Card

DIMENSIONS on welding fittings and flanges that could otherwise be found only by searching through many catalog pages and tables have been condensed and reproduced by Taylor Forge on two sides of an 8½ x 11-in. card.

One side covers the broad WeldELL line of Taylor Forge welding fittings. It shows the wall thickness and the essential dimensions for all types of fittings for every nominal pipe size from ½ in. through 30 in.

The other side covers the world's most complete line of forged steel flanges. The essential dimensions and bolting data are given for all types of flanges, in all weights, for nominal pipe sizes from ½-in. through 24-in.

Other useful information for piping engineers is also given on the card.

The cards are varnished on both sides to enable them to withstand prolonged use.

Copies are available, upon request.

Applebaum Heads Cochrane Water Treatment Division

COCHRANE CORPORATION, Philadelphia, manufacturer of water conditioning equipment and steam specialties, announces the appointment of S. B. Applebaum as manager of its water treatment division. Mr. Applebaum, who has specialized in water conditioning for more than 35 years, joined Cochrane in 1949, since which time he has been manager of the cold process section of the water treatment division. He was founder and is vice president of Liquid Conditioning Corporation, now a subsidiary of the Cochrane Corporation.

International L-120 (GVW 5,400 pounds) with a new service body. Body features include: built-in trays and weather-tight compartments; doors with slam-action catches and cylinder locks all keyed alike; and extra-safe rolled edges on shelves and partitions.

This light-duty International helps take the tension out of high-tension wor

Even when service work keeps your men working at top speed, you can count on light-duty International Trucks to lessen the strain.

You can count on the $11,000,000 valve-in-head Silver Diamond engine to deliver more power for faster trips to and from jobs. You can count on Super-steering and Super-maneuverability for new ease of handling, faster threading through traffic, and quicker turns in the shortest practical circles. Most important . . .

You can count on heavy-duty engineered stamina. Heavy-duty engineered stamina means day-in-and-day-out dependability, no matter how tough the going might be.

You get extra strength in every part of every light-duty International. This assures you the savings in operation and maintenance and the long life that have kept Internationals first in heavy-duty truck
for 18 straight years.

And every service man can c
on more comfort. A service man r
from job to job in almost as m
comfort as he rides to work.

He sits in the Comfo-Vision
—"roomiest cab on the road."
gets full front visibility throug
one-piece, curved Sweepsight w
shield. He enjoys more positive
trol from a more comfortable
ing position.

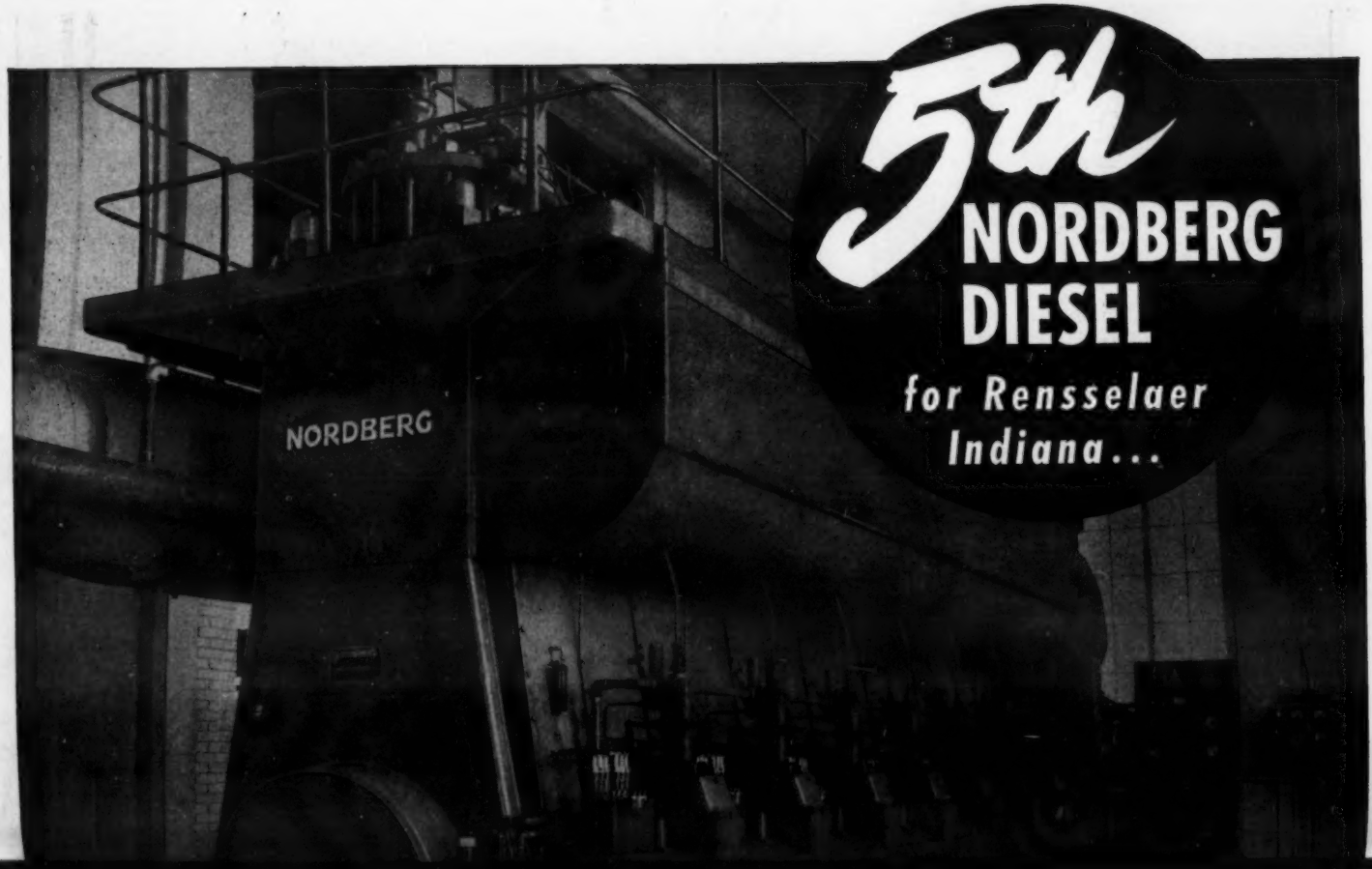
See your nearest Internatio
Truck Dealer or Branch. You s
your customers better with a t
that serves you better. It'll pay
to get all the facts now.

International Harvester Builds
McCormick Farm Equipment and
Farmall Tractors... Motor Trucks
Industrial Power... Refrigerators and Freez

Heavy-Duty Engineered

INTERNATIONAL INTERNATIONAL **TRUCK**

INTERNATIONAL HARVESTER COMPANY CHICAGO


5th
NORDBERG
DIESEL
for Rensselaer
Indiana...
NORDBERG
1924
a 5-cylinder, 550 H.P. unit. Original
steam engine kept available for

1924 a 5-cylinder, 550 H.P. unit. Original steam engine kept available for stand-by service.

OUTLINED here are highlights of the development of the municipal power plant at Rensselaer, Indiana . . . a plant started in 1898 with a 60 H.P. steam engine belted to a 1,000 volt generator, and progressing through 53 years until a total of five Nordberg Diesels were installed to handle the ever increasing load.

The fifth Nordberg now carries a large part of the plant load, operating from 14 to 16 hours each day until the load drops to where smaller units can handle it more economically. Comparing present day output of this new Diesel with that of the plant when Diesels were first installed, we find that in two months the new 2800 H.P. unit generates an amount about equal with the entire annual output in 1925. In one month, this unit generated 475,500 K.W. hours at the rate of 13 K.W. per gallon of fuel, carrying an average load of 54%. Lighting rates at Rensselaer have been among the lowest in Indiana . . . thanks to dependable, low cost Nordberg power.

Here again is a typical example of the way in which Nordberg Diesels provide the economical answer to municipal and industrial power problems. Write for details on a Nordberg engine to meet your requirements—in sizes from 10 to 9600 H.P.

NORDBERG MFG. CO., Milwaukee 7, Wis.

1928 SECOND Nordberg Installed . . . an 875 H.P. unit driving a 600 K.W. generator. Steam plant abandoned.

1932 THIRD Nordberg Installed . . . developing 1425 H.P. and 1000 K.W. New building erected and old plant razed.

1940 FOURTH Nordberg Installed . . . a 6-cylinder, 1500 H.P. unit, bringing the plant capacity up to 4350 H.P.

1950 FIFTH Nordberg Diesel Installed . . . a 7-cylinder, 21½" x 29", 2800 H.P. unit, driving a 2400/4160 volt, 1980 K.W. generator. Total plant capacity now 7150 H.P.

P1050

BUSCH-SULZER
A DIVISION OF NORDBERG

NORDBERG
DIESEL ENGINES

More Trench FOR YOUR BUDGET DOLLAR

...Because CLEVELANDS last longer, as proved by the high percentage of early CLEVELANDS still in daily use. Because records show CLEVELANDS are thrifty on operating costs, outstandingly low on maintenance expense. And because CLEVELANDS cut your total machine investment.

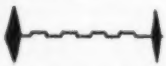
When you standardize on CLEVELANDS you do more work with fewer machines. Built-in higher cutting capacity hangs up yardage records no matter what you're digging. Each CLEVELAND model is engineered to fit more different kinds of jobs. CLEVELANDS load quickly on truck or trailer for fast jumps between jobs. And CLEVELANDS extra-rugged design and construction keep them out of the repair shop, keep them on the job the year 'round. Investigate today. Call your distributor or write direct.

THE CLEVELAND TRENCHER CO.
20100 ST. CLAIR AVENUE • CLEVELAND 17, OHIO

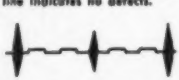
CLEVELANDS

HOW IT WORKS

Supersonic waves are sent into the material under test. Upon reaching the other side, or upon reflection by a discontinuity, the waves return to their source and are then converted into a high-frequency potential. This potential is amplified by electronic circuits and projected upon the screen of a cathode-ray tube where they may be seen and examined.



Pulse pattern, showing the initial pattern at the extreme left and the reflection from the opposite side at the extreme right. The sweep line indicates no defects.



A typical indication of a defect is illustrated here. By means of calibration, it is now possible to determine both the exact position of the flaw, as well as its size.

Today, Supersonic testing is available on specification for inspecting Grinnell prefabricated piping. By observing the pattern produced by the electron beam on the fluorescent screen, any defects in the base metal, welds, or variations in pipe thickness can be located and measured at a glance.

Grinnell's ultra modern electronic testing can be relied upon to detect hidden flaws in pipe materials, to check unerringly the quality of welds where it picks up types of flaws not revealed by X-ray and gamma ray inspection. In examining bends, this type of testing can measure the degree to which bent pipe thins on the outside and thickens on the inside of the bend, assuring full specified thickness in high temperature, high pressure work.

Non-destructive Supersonic testing is another in a constant succession of new techniques employed by Grinnell to provide prefabricated piping which is safe and dependable . . . which measures up in every way to *rigid* state, national, association and insurance code requirements. It is another reason, too, why it will pay you to think of Grinnell "Whenever Piping Is Involved".

GRINNELL

WHENEVER PIPING IS INVOLVED

GRINNELL COMPANY, INC., Providence, R. I. Warehouses: Atlanta • Billings • Buffalo • Charlotte • Cleveland • Cranston • Fresno • Kansas City • Houston • Long Beach • Los Angeles • Milwaukee • Minneapolis • Oakland • Philadelphia • Pocatello • Sacramento • St. Louis • St. Paul • San Francisco • Seattle •

PROFESSIONAL DIRECTORY

• This Directory is reserved for engineers, accountants, rate experts, consultants, and others equipped to serve utilities in all matters relating to rate questions, appraisals, valuations, special reports, investigations, financing, design, and construction.

(Professional Directory Continued on Next Page)

PROFESSIONAL DIRECTORY (*continued*)

PROFESSIONAL DIRECTORY (*continued*)

(Professional Directory Continued on Next Page)

PROFESSIONAL DIRECTORY *(continued)*

PROFESSIONAL DIRECTORY *(concluded)*

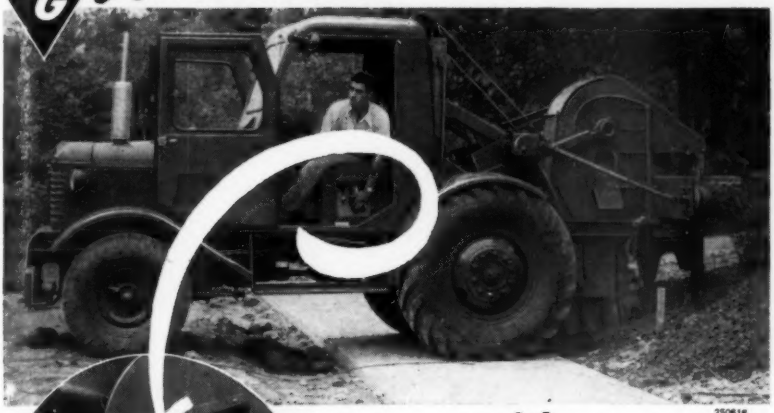
INDEX TO ADVERTISERS

[*The Fortnightly lists below the advertisers in this issue for ready reference. Their products and services cover a wide range of utility needs.*]

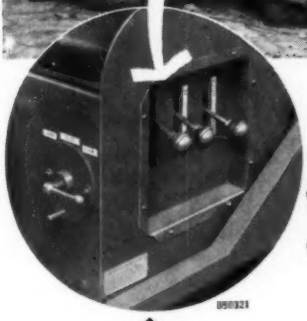
*Fortnightly advertisers not in this issue.

Barber-Greene Model 705-A

B-G Runabout SERVICE DITCHER



250616



050321

with

HYDRA-CROWD

finger-tip hydraulic control of crowding speed...independent of bucket line speed

The Hydra-Crowd — hydraulic transmission of power to the driving wheels — allows the operator of the Runabout, with a twist of the wrist, to keep it going at top digging efficiency through varying soil conditions.

The Model 705-A Runabout now features the Hydra-Crowd, which provides an infinite range of crowding speeds from 0 to 16 f.p.m., independent of bucket line speed. With its 15 m.p.h. road speed and Vertical Boom milling action — and new Hydra-Crowd control — the Runabout combines mobility and digging efficiency to make possible lowest cost per foot of trench in all digging conditions the year around.

203-A

SEND FOR BULLETIN!

Send for Bulletin 705-A which describes completely all the advantages you gain when you use a Model 705-A Runabout Service Ditcher.

Outstanding Runabout Performance Features

All-Weather — All-Ground Digging • 15 m.p.h. road speed • One-man operation • Control of digging from cab or ground • Fastest digging in everything from loam to coral rock • 5½", 7½", 10½" cutting widths • Instant stop — quick reverse • Digs clean trench — no ramp to be dug by hand.

Barber-Greene Company

Aurora, Illinois, U.S.A.

These G-E switched Pyranol capacitor equipments rated 5100 kilovars at 13,200 volts are installed on the syst the Metropolitan Edison Company, York, Pa. *All* utilities today are finding it pays to install capacitor kvar, so much as 50% of their peak load.

G-E switched capacitors prove life-savers as loads climb

Short deliveries on equipments. Priced less than $8.00 per kvar

Electric utilities in all parts of the country tinue to find that capacitors provide the fas cheapest way to increase system capacity.

Where you already have installed a high centage of fixed capacitors—or where your kil loading varies widely in any 24-hour period— can profit by the use of *switched* capacitors. A matically switched capacitor equipments can provided at low cost. The G-E 5100-kvar 13. volt Pyranol* capacitor equipment illustrated h with breaker and automatic control, is priced at than $8.00 per kvar.

Switched capacitor equipments are available short delivery. They can be installed in a matt hours. They provide the least expensive metho releasing system capacity. Call your nearest Sales Office or write for information on how ca itors can help you. Address Sec. 407-31. *Appar Department, General Electric, Schenectad 5, N*

**Reg. Trade mark of General Electric Company.*

GENERAL ELECTRIC